

TEACHERS' SALARIES

By

WILLARD S. ELSBREE

ASSOCIATE PROFESSOR OF EDUCATION
TEACHERS COLLEGE, COLUMBIA UNIVERSITY

BUREAU OF PUBLICATIONS
TEACHERS COLLEGE, COLUMBIA UNIVERSITY
NEW YORK CITY
1931

COPYRIGHT, 1931
BY
TEACHERS COLLEGE
COLUMBIA UNIVERSITY

FOREWORD

THE determination of salaries for teachers is one of the most perplexing problems which confront school administrators and boards of education. Unfortunately it admits of no permanent solution, but is an ever-recurring cause of controversy. Every year scores of superintendents struggle with facts and figures, hundreds of board members deliberate upon principles and policies, and thousands of teachers plan, confer, and organize in an attempt to establish a compensation plan which is satisfactory to everyone concerned. Yet in spite of all this expenditure of effort teachers' salaries often remain a bone of contention and a potent source of dissatisfaction.

In this monograph the author has attempted to examine critically the basic principles of salary payment, to evaluate various techniques of salary scheduling, to outline a procedure for formulating a salary schedule for teachers, and to present the best illustrative material available. It is hoped that this treatise will prove valuable to all those who are in any way concerned with the problem of teachers' salaries.

W. S. E.

CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	I
II. THE ECONOMICS OF TEACHERS' SALARIES	7
Wages	8
Teachers' Salaries	13
Cost of Living	23
Family Allowances	33
III. EQUAL PAY	37
Supply and Demand	38
Family Support	43
Equal Pay Legislation	45
IV. TYPES OF SALARY SCHEDULES	51
The Position Type Schedule	52
The Preparation Type Schedule	55
Annual Increments	59
Special Provisions	63
V. RATING TEACHERS FOR SALARY PURPOSES	70
VI. STEPS IN FORMULATING A SALARY SCHEDULE	85
VII. ESTIMATING THE COST OF A SALARY SCHEDULE	124
Position-Automatic Schedule	125
Preparation-Automatic Schedule	144

Other Types of Salary Schedules	164
Salaries of Supervisors and Principals	164
VIII. THE ABILITY OF THE COMMUNITY TO SUPPORT TEACHERS' SALARIES	165
IX. SALARY CAMPAIGNS	173
Organization	176
Types and Sources of Campaign Materials	182
Presenting the Facts	198
State Salary Campaigns	205
SUPPLEMENTARY READINGS	211
APPENDIX	215
INDEX	281

TEACHERS' SALARIES

CHAPTER I

INTRODUCTION

THERE was a time not so very long ago when teaching was regarded as a missionary task, undertaken in a joyous spirit of self-sacrifice by those who had renounced worldly pleasures. Teaching was supposed to be a "labor of love." Educators themselves believed this doctrine and even went so far as to say, "The occupation of teaching and the act of drawing pay have always been mutually repulsive, and always must be. . . . The idea of money in connection with teaching is distasteful to everyone imbued with the purest zeal for giving instruction. A teacher known to be 'on the make', or whose name becomes associated with agitations for higher wages, is liable to a loss of the bloom from his best teaching spirit."¹ Such a rationalization suited the general public very well indeed, since it promised to provide the best instruction for the least expenditure. The rewards of teaching were expected to be largely spiritual; hence the only financial remuneration considered necessary was a paltry pittance barely sufficient to enable the teacher to keep body and soul together. And if, perchance, low salaries caused teachers to display some anxiety about their

¹ McAndrews, William A., "Theories of Salaries Discussed." *New York Education*, October 20, 1898, p. 71.

material welfare, the community of business people, themselves strenuously engaged in pursuing the golden dollar, were revolted by the crass self-interest of a supposedly spiritual-minded profession.

Gradually, however, it began to dawn on the more enlightened members of the community that missionary zeal alone does not guarantee effective teaching; that poverty, even of the respectable sort, is not conducive to optimum performance in the classroom; and that low salaries are really a false economy. Intelligent observers realized that self-denial was not popular and that the most promising youths and maidens were disinclined to enter so poorly-paid a calling. Far-sighted individuals began to speculate upon the unfortunate effect which adherence to the missionary doctrine would have upon the quality of the teaching personnel and the disastrous consequences to school children and ultimately to society as a whole. The outcome of this growing skepticism has been a strong movement to raise salaries—a movement based not so much on a sentiment either of pity for the hardships endured by teachers or of desire for fair play for an unappreciated group of wage-earners, as upon a firm belief that adequate salaries for teachers promote the well-being of all.

For the fate of society rests in the teachers' hands to a far greater extent than the layman realizes. Upon their skill, their knowledge, and their personal influence depends not only the immediate welfare of the pupils under them, but the shaping of tomorrow's citizenry. Nor is the quality of teaching of primary concern to parents and reformers only. Even from a purely selfish standpoint, every individual is personally affected by the education

afforded children. The schools determine in no small measure the character of the community in which the individual lives, and they are mainly responsible for the fact that the people with whom he mingles daily are decent, healthy, cleanly, literate, and alert. Moreover, universal suffrage will soon give the children of today power at the polls, where one man's vote counts just as heavily as another's. Each man's welfare is thus dependent to a large extent upon the schooling given his neighbor's children. Teachers' salaries, then—in so far as they affect the actual instruction of the younger generation—are not merely an academic problem, but a matter of deep and vast significance to every citizen.

The salaries paid public school teachers determine not only the quality of the human material that enters the profession, but also the amount and character of their general and professional preparation and their subsequent improvement in service. Even after a good grade of raw material has been obtained, money is necessary to develop it to its highest potentialities. Professional preparation requires a large initial outlay which teachers are not likely to make unless a reasonable financial return is assured them. Communities that desire teachers with a cultural background of literature, art, music, and the drama, in addition to technical training, must pay them liberally enough to make this background possible. Books, magazines, concerts, lectures, and theater and opera tickets cannot be had for the asking. Travel enriches the teacher's experience and gives her a cosmopolitan point of view, but travel is expensive. The teacher whose private life is strangled by poverty and whose outlook is limited by the four walls of her boarding house

can hardly escape having a distorted perspective. Of all the groups in the community, teachers have first claim to a broad, cultural background—not by virtue of their own personal worthiness, but because the development of cultural tastes and ideals in the younger generation rests mainly in their hands.

Leisure, itself a by-product of money, is absolutely essential to mental and physical vigor. The teacher must have time for reading and study, time for recreation and diversion, time for cultural interests, and time for travel. If the teacher's salary is so low that she must either devote her out-of-school hours to making her own clothes, doing her own laundry, cooking, and cleaning, or else take on odd jobs to help defray expenses, she will have little time and less energy for those outside interests which would contribute to her effectiveness in the classroom. Teachers whose nerves are worn to a fine edge by mental and physical exhaustion, by too much routine and too little diversion, cannot have the patience, the tolerance, and the infinite sympathy which are essential to successful work with children. Still less can they emanate enthusiasm and impart to their classroom teaching the sparkle and buoyancy possible only to healthy, happy, sane individuals.

Finally, money has an important psychological effect. Attractive surroundings act as a tonic. Good clothes have a subtle but none the less real influence upon their wearer's state of mind. A sense of financial security gives serenity and poise. If teachers are to be the epitome of optimism, they must have enough of the physical comforts and the niceties of life to maintain their own self-respect and to command the respect of others.

Thus the quality of instruction and the whole emotional tone of the teacher depend upon her salary. Children are so susceptible to the personal influence of the teacher that it is a matter of the utmost importance that teachers be imbued with hope, not drugged with despondency. The public should congratulate itself that teachers are human beings, that they have a normal desire for a comfortable standard of living, and that they are not insensible to the pleasure and the profit to be gained from many of the finer things of life which only money can buy.

As long as salaries were determined by individual bargaining, teachers fared very badly indeed. Haunted by poverty, aware of their precarious position, teachers, individually, were no match for hard-headed school board members intent on driving as sharp a bargain as possible. Hence, the general level of salaries was lamentably low. Moreover, the more skillful bargainers among the teachers and those with personal or political influence fared better than their less aggressive colleagues—a state of affairs that caused jealousy within the ranks and created resentment against the school authorities. These conditions, combined with the lengthy annual disagreements about salaries, led first the larger school systems and then the smaller ones to adopt fixed salary scales for their staffs.

This advent of the definite salary schedule was a long step toward the professionalization of teaching. The elimination of the personal element permits the school authorities to consider the problem in all its ramifications, impersonally and dispassionately, with an eye to the

present and future welfare of all concerned. While a schedule for teachers whereby their pay rises by annual increments from a specified minimum to a definite maximum has undesirable as well as desirable features, the advantage to the teachers of knowing what they have to look forward to financially more than offsets the possible disadvantages of such a system. It is no longer a question of whether or not a school system shall have a salary schedule; the problem today is how to formulate the most effective schedule.

CHAPTER II

THE ECONOMICS OF TEACHERS' SALARIES

WHEN confronted with the question of teachers' salaries, laymen and educators alike are apt to respond glibly, "Oh, salaries are entirely a function of the supply and demand of teachers." That magic little phrase "supply and demand" seems to put the period of finality to all discussion of the subject by removing the whole matter from the control of mere man and placing it in the realm of mechanistic economics. But this summary dismissal of the problem does not satisfy the curious student, who wants to pry the lid off the economic machine to find out what makes the wheels go round.

To the economist, teaching is a form of labor, and remuneration for labor, whether the labor be mental or physical, whether it produce a commodity or perform a service, is determined by the interaction of certain economic laws. Teachers wish to sell their services for the highest price obtainable; school authorities, charged with the interests both of pupils and of the general public, wish to purchase the highest quality and the largest quantity of instruction possible with the money at their disposal. This is the typical relation between employer and employee. Thus teachers' salaries are only a special case of salaries in general, and salaries are only a special form

of wages. In order to understand the economic bases for teachers' salaries, then, it is necessary to make a general survey of the field of wages.

WAGES

Various theories of wages have been advanced to explain the share of the national dividend going to labor. The earliest was the Subsistence Theory, which was that wages constantly tend to fall to the amount just necessary to enable the laborer to subsist and to rear the new generation. This "Iron Law of Wages" was based on the belief that any increase in wages was followed by an increase in the population, and that the competition of this additional labor lowered the income of all laborers to the subsistence level; whereas a decrease in wages meant that either the laborer or his children would starve, thus producing a labor shortage and forcing remuneration up to the subsistence level again. This gloomy theory has been refuted by the fact that in many countries real wages have increased much faster than the population; in fact, rising wages have been accompanied by a declining birth-rate.

The second theory of wages to be advanced is known as the Wages Fund Theory. According to this theory, wages are determined by the ratio between the number of laborers and the amount of circulating capital available for wage payment. From this general statement the inference was drawn that as long as the ratio between labor and capital remains constant, wages can rise in one locality or in one industry only at the expense of another locality or another industry. This corollary was not borne out by the facts, and the idea that wages are a

fixed quantity was exploded. The Wages Fund Theory, therefore, is no longer seriously considered by modern economists.

The Marginal Productivity Theory, the chief contemporary explanation of wages, is that the rate of wages is determined by the value of the product of the marginal worker. The productivity of a laborer is the amount which he adds to the aggregate product,¹ or, in other words, the amount that the employer would lose by not employing him. In attempting to secure the most effective combination possible of the three agents of production—land, labor, and capital—the employer will use only as much of each as seems profitable. Accordingly, he will continue to hire laborers as long as he gains by so doing, and he gains as long as the contribution to the product made by each additional worker is greater than the wages paid. But with a given amount of land and capital, each successive man added to a homogeneous labor force is less valuable to the employer than the man just preceding him,² until a point has been reached where the value of

¹ Productivity is here used in the special sense of production of exchange-value. The man who makes a hat which sells for \$12 is twice as productive as the man who makes a hat which sells for only \$6—even though the hats are identical in kind and quality and the two men have worked equally hard and long in their manufacture. Productivity is not synonymous with efficiency, with effort, nor with output. Productivity is the creation of pecuniary value.

² Even though "successive units of labor be equal in willingness to work and ability to work, their product will not necessarily be the same. As successive units of labor of the same strength and intelligence are drawn into use, the additions of effort will gradually yield less and less product. Decreasing productivity of additional units of labor effort may be due to diminishing returns because of size of management or limitation of other factors. But more especially, decreasing productivity of additional units of effort may be due to the fact that the added

the product of an extra man is no greater than his wages. This is the point of marginal productivity. Because any man can be substituted for any of the other men in the homogeneous group under consideration, the marginal laborer is *any* laborer conceived as placed at the margin, and his wage becomes the wage-rate for the entire group. Free competition gives the marginal worker a wage equal to the (discounted)³ value of his product,⁴ so that the wage-rate is said to be fixed by the "marginal productivity" of the worker.

Marginal productivity depends upon the scarcity of labor relative to the supply of land and capital and upon the intensity of the demand for labor. Other things being equal, the productivity of a laborer varies inversely as

supply of the product may so alter the relation between supply and demand as to depress the price and exchange value severely. Additional units of effort yield increased total supply. Increased supply tends to depress prices. As the price of the product falls, the product of each additional unit of labor is worth less and less. The fall in the value of additional product is not due to any slackening in effort on the part of the laborer. He may be working harder than ever before, but his additional product will be worth less and less because increased supply has brought prices down." (Edie, L.D., *Economics: Principles and Problems*, p. 356 n. New York: Thomas Y. Crowell Company, 1926.)

³ Since wages are usually paid before the product of labor is sold, they constitute an advance payment. An interest charge is therefore made by the employer to cover the interim between the time wages are paid and the product is sold. Hence the worker's remuneration does not represent the full value of the marginal product but is equivalent to this value minus a deduction for interest.

⁴ If the laborer is paid less than he produces, the employer pockets an unearned surplus which causes other employers to bid for the services of his laborers. This process, if uninterrupted, would continue until the whole of the surplus had been added to the laborer's wage. On the other hand, if the wage-earner is paid more than he produces, the employer cannot afford to keep him, and the laborer must choose between quitting the job or accepting less pay.

the number of workers in the occupation in which he is working. Efficiency is a factor in wage determination in that the best workers in a given trade are always most in demand. They are the last to be laid off, the first to be re-hired, and the ones to be promoted. But ability, efficiency, and worth are all impotent against the supreme factor of scarcity.

Since scarcity is the indispensable accompaniment of high wages, it would seem natural that many of those in the overcrowded occupations would forsake their unremunerative jobs for better-paying positions; and that this flow of labor would continue until an equilibrium in the numbers in each occupation had been reached, with a consequent equalization of comparative wages. Contrary to expectation, however, the movement of labor from one grade of work to a higher is exceedingly sluggish. This "immobility of non-competing groups" of labor is attributed by Edie⁵ to inequalities of native ability, of social and educational opportunity, and of birth-rate, among the various levels of the population. These inequalities are mainly responsible for vertical immobility, while loss of skill and jealously guarded entrance restrictions constitute an effective deterrent to horizontal movement of labor. Hence the scarcity of workers in certain occupations and the oversupply of laborers in others, accompanied by corresponding wage differentials, show a pronounced tendency to persist.

But the supply of labor is only half the story; marginal productivity is the resultant of two forces—scarcity of laborers and utility⁶ of labor. The supply factor having

⁵ Edie, L.D., *Economics: Principles and Problems*, p. 358. ⁶ Utility is the power of a commodity or a service to satisfy human wants.

been discussed, it is now necessary to consider the rôle of demand (marginal demand, since again we are considering "a little more or a little less" of something). The demand for labor is determined entirely by the marginal demand for the product of labor on the part of consumers, as anticipated by the employer; and marginal demand for goods, in turn, is governed by the following three important factors:

1. Intensity of desire.
2. Diminishing utility.
3. Purchasing power of the consumer.

The Marginal Productivity Theory of Wages assumes an artificial economic system where competition is completely free, where labor is both intelligent and mobile, and where self-interest is the only motive; it also assumes a competition between employers for labor at least as keen as between employees for jobs, with a consequent equality in the bargaining power of these two parties. The actual situation, however, is quite different. Inertia, friction, cost of transportation, home ties, and friends make laborers highly immobile, even when they are possessed of sufficient intelligence and information to find superior opportunities elsewhere. The worker risks more than the employer if the two cannot come to terms, a condition which, in the absence of trade unions, makes the bargaining power of labor weaker than that of the employer and results in keener competition among laborers than among employers. From a consideration of these factors, it is evident that the Marginal Productivity Theory is a statement of trends and tendencies rather than a rigid economic law.

TEACHERS' SALARIES

The difficulty of applying the Marginal Productivity Theory of Wages to teachers' salaries is at once apparent. While teachers create wealth, which may be considered an economic product, that wealth is not in such form that they can readily gain control of it or collect pay for it. It would be extremely difficult to set a money value on the educational output of the schools, even if it were possible to distinguish the effect of schooling from the results of home training, religious influence, summer camps, social contacts, physiological growth, etc. Furthermore, the specific contribution of a particular teacher to the education of a certain child is also unmeasurable. From a practical standpoint, then, other considerations than units of productivity have determined and will continue to determine the level of teachers' salaries.

Any effort to apply the Marginal Productivity Theory directly to teachers' salaries meets with greater obstacles than sheer inability to isolate, measure, and set a value on the teacher's product. Education is not established on a basis of equal exchange. The whole purpose and structure of the educational enterprise is different from that of the business concern. Business is carried on for profit; public schools are maintained in order that their product may be practically given away. Business is conducted by private enterprisers on a competitive basis; schools are operated by the community and the state as a virtual monopoly. Wages for industrial workers come from the sale of the finished product; teachers' salaries come from the taxpayers' pockets. Wages are determined by employers who have large personal interests at

stake; teachers' salaries are usually determined by an unpaid, elective school board who have little to gain or lose. Government interference in wage-fixing is rare; state intervention in the establishment of teachers' salaries is fairly frequent.⁷ In short, education and business are so different in motive, in organization, and in operation, that forces which rule unchallenged in the latter field are far less potent or may even be negligible in the former. Hence a theory especially formulated for one field cannot be transferred bodily to the other with any expectation of a snug fit.

Although the Marginal Productivity Theory cannot be applied directly, it nevertheless has an important indirect bearing on the remuneration of teachers. Teachers' salaries are determined to some extent by the amount of wealth which individuals of the same quality as themselves are actually producing in other occupations. Men and women who enter teaching have other alternatives open to them. They must be lured away from other vocations; and what they could have earned in those other occupations is a primary consideration in determining what they are willing to accept in education. As the industrial worker's wage is governed by the productivity principle, so the school-teacher's salary tends to follow the same rule by roughly conforming to the amount that he would produce and would receive in business.

⁷ In several states minimum wage legislation fixes the lower limit for salaries, while tenure legislation in thirteen states and in the District of Columbia not only prevents the dismissal of teachers, but precludes salary cuts. State and federal subsidies frequently make it possible to offer higher salaries to certain classes of teachers than could otherwise be offered.

Sometimes teachers know definitely what their services are worth in the business world. The cabinet-maker who decides to teach manual training, the printer who leaves his press for the high school print shop, and the tea-room manager who becomes a teacher of home economics all have tangible evidence of their earning capacity in industry against which to compare the salaries obtainable in education. More often, however, those who enter teaching have had no experience in other vocations and can only make an estimate of what they could earn elsewhere. Educational work must therefore be made sufficiently attractive financially to induce them to forego potential opportunities for money-making in other fields, as they estimate them.

If the level of teachers' salaries falls too far below wages in comparable occupations, the quality of the individuals who enter educational positions will deteriorate. There may still be a plentiful supply of candidates who can meet the formal training and examination requirements, but they will be of an inferior calibre. Character, personality, and intelligence count very heavily in determining the worth of teachers, and these qualities must be paid for at a high rate, since they are relatively scarce and are highly valued in other occupations also.

Because many school boards are not so discriminating in the matter of selecting personnel as they should be, a numerical oversupply of candidates who can meet the technical requirements for a certain teaching position has a decided tendency to depress salaries. Other things being equal, in communities with such want of discernment the greater the number of applicants in proportion to the number of teaching positions, the lower will be the

salary of each individual. And the salaries paid in these marginal communities in turn affect salaries elsewhere, even in the more discriminating communities with high qualitative standards. Efforts to increase salaries are therefore seriously hindered by an oversupply of teachers.

Even if the supply of workers in the various industries were equated, the schools could probably secure teachers for somewhat less than these same individuals could earn in another occupation because of other inducements which make teaching attractive. Its respectability, its healthfulness, its minimum of risk, the short hours, the frequent holidays and long vacations, the feeling of rendering an important social service, and the intellectual and emotional pleasure derived from instructing young children combine to make the vocation of teaching far more alluring than most other kinds of work. Since the teacher's salary is supplemented by these "other good and valuable considerations," she is usually willing to accept a lower salary than if she took a business position where her compensation would be reckoned in dollars only. Some differential between the pay of teachers and that of comparable workers in industry, then, may be expected to persist.

Energetic and intelligent laborers have not been content to leave the determination of such an important matter as wages to "blind economic forces"; they have organized unions for the better protection of their interests. Believing that the rate of wages in a trade is always man-made, that the factors which determine it are susceptible to control, and that increased pay can be secured through concerted effort, the labor union has undertaken to improve the financial status of its members

through control of the supply factor. With collective bargaining as its principal tool and the strike as its chief weapon, it has sought to force employers to grant more favorable terms under threat of cutting off the labor supply altogether. Obviously, the extent of the union's power depends upon the degree to which it can control the total supply of labor in a certain trade. That the American Federation of Teachers has not wielded so great an influence on salaries as its industrial counterpart, the American Federation of Labor, has on wages is due, no doubt, to the comparatively small proportion of the nation's teachers enrolled in the American Federation of Teachers. In communities where the American Federation of Teachers is strongly entrenched it has undoubtedly increased salaries appreciably by dint of political pressure. In England, the National Union of Teachers practically controls the supply of elementary teachers. This powerful organization has actually called teachers' strikes, and by supporting those thrown out of jobs, by blacklisting recalcitrant communities, and by influencing public opinion, it has succeeded in gaining substantial victories for the profession. Any organization which can succeed in corraling a large percentage of the teachers can, directly or indirectly, exert a marked influence on salaries.

The fact that more than three-quarters of our public school teachers are women has a definite effect upon salaries. So many industrial fields are closed to women workers⁸ that they have perforce swarmed into the few occupations which are open to them and which make them reasonably welcome. The presence of such a large pro-

⁸ See footnote on page 38.

portion of women in the teaching profession has a decided tendency to lower salaries, since women are notoriously paid less for the same work than men with equivalent qualifications.

There are, then, three conspicuous economic forces which tend to depress teachers' salaries, namely, over-supply of technically qualified teachers, absence of strong professional organization, and overfeminization.

Demand is also a factor.

In the business world, employers everywhere are eager to increase the demand for their respective products, and to that end they maintain large advertising departments and expensive salesmen. Sales managers are constantly concocting new schemes to induce the reluctant consumer to purchase this or that brand of a certain commodity. All the tricks of psychology are cunningly turned to account by advertisers whose sole purpose and *raison d'être* is the artificial stimulation of popular desire for a particular product. While we cannot measure accurately the results of these efforts, they undoubtedly do exert an important influence on the demand for goods; and since the business man cannot increase the purchasing power of the consumer and can do little or nothing to prevent diminishing utility, he has perforce centered his whole attention upon increasing intensity of desire.

But the school has no salesmen, no advertising department to proclaim its wares to the public. It cannot display its goods on a counter, nor can it effect a cure, construct an edifice, win a case, or in other ways give tangible evidence of its value. The man on the street has not sensed the vast significance of education. Small

wonder, then, that school boards composed of the butcher, the baker, the candlestick maker, have been disinclined to reward handsomely the purveyors of what they believe to have doubtful worth. So long as educational output has little market value, its producers cannot hope for a large return on their labor.

The teaching profession has been far too modest about its responsibilities and accomplishments for its own good and for the good of society. Teachers have been content to accept the paltry salaries doled out to them by short-sighted boards of education, and with nothing more than a little private grumbling have resigned themselves to living within their meager incomes. Were it not for compulsory education, which has stimulated demand, teachers would not even be so well off as they are now. If there is to be a real and spontaneous demand for education, the general public must be jolted out of its traditional attitude of indifference and awakened to the vast importance of the schools.

Teachers might well take a leaf from the book of business and do a little discreet advertising on their own account. Probably the first step in this direction is a positive belief in themselves and in their contribution to society; teachers must themselves be convinced of their own worth before they can convince others. In general, anything which enhances the teaching profession in the public eye strengthens the teachers' case for higher salaries. Honors, awards, recognition of any sort magnify the importance of teaching and compel public respect. But self-esteem and distinction are of no avail unless accompanied by character, intellect, and teaching efficiency. The increased demand produced by effective

advertising is only transitory unless it is backed up by a product which has real utility for the consumer.

CONTROL OF SALARIES

The foregoing discussion has attempted to give content and meaning to the phrase "supply and demand" by launching into an explanation of marginal productivity, and has also endeavored to show the extent and manner of the application of this principle to teachers' salaries. Most educators, however, are less interested in knowing why teachers' salaries are what they are than in discovering how they can be controlled, and specifically, how they can be increased. Although teachers' salaries are derived from taxation, while wage-earners are paid from the sale of a product or a service, the sources of additional income are much the same for the two classes of workers.

Teachers' salaries, in common with wages, may be raised by the following means:

1. *Redistribution*

Higher wages can be obtained by increasing labor's share of the total national dividend at the expense of profit, rent, or interest, that is, by taking from one class of workers to give to another. In the case of teachers, this would mean (*a*) raising the school tax-rate, or (*b*) increasing the proportion of state and municipal taxes devoted to education, or (*c*) changing the incidence of taxation. Higher salaries in the first instance would be contributed to by all taxpayers. In the second instance, the tax-rate would remain unchanged, but teachers would receive some of the money otherwise expended on street-cleaning, road-making, fire protection, traffic control, law

enforcement, park maintenance, public health service, sanitation, etc. In the third instance, a different kind of tax might raise more revenue with less hardship.

II. *Increased Total Production*

Obviously the amount of wealth which wage-earners can acquire is limited by the total amount available for division. By maintaining the same proportionate share of labor but increasing the total dividend in one way or another,⁹ the amount accruing to labor can be augmented. If we regard the school as a productive undertaking comparable to an industrial concern, almost every form of efficiency—scientific management, better routing, superior technique, modern equipment, effective organization, technical research, etc.—which eliminates waste and lowers the cost of production in business enterprises can perform the same office in the school. If coal is purchased more cheaply and used more efficiently, if clerical assistance is more expert, if school buildings are properly located, better planned, and more completely utilized, if rural schools are consolidated, and if countless other economies are effected which in no way impair the educational program, funds are released which may be devoted to teachers' salaries.

Teachers may also profit from increased production in fields other than their own, because the same tax-rate will raise more money as the wealth upon which it is assessed increases. In this connection it should be noted that teachers would gain from greater national prosperity only

⁹ For an excellent discussion of sources of higher wages see Hamilton, Walton and May, Stacy, *The Control of Wages*. New York: George H. Doran Company, 1923.

if the new wealth were in taxable form. Teachers also gain if part or all of the newly created surplus in an industrial concern is passed on to the consumer in the form of lower prices, instead of being added to the laborer's pay-envelope, the management's salary check, the entrepreneur's profits, the landlord's rent, or the investor's interest. Lower prices do not add to the teacher's nominal salary but are an important means of raising her "real wage" by making the same income go further.

Increased production makes possible, but does not guarantee higher salaries. Sufficient strength to secure a slice of each new gain is essential for bigger and better incomes.

III. *Increased "Free Income"*

Services which are not a part of the worker's wage and for which he does not have to pay constitute his "free income." The teacher's free income may come to her, as a member of the community, in the form of public parks, playgrounds and beaches, public health service and clinics, education, public libraries, etc., or it may go along with her educational position, as pension provision, school medical service, and use of the gymnasium for recreation. In either case these services contribute to her well-being without subtracting from her salary.

In conclusion, the teacher's material welfare can be improved, first, by increasing her "real wage," through the medium of larger salaries or lower prices, or both, by the means indicated above. The second way in which her financial well-being may be promoted is by increasing her free income.

COST OF LIVING

The size of a worker's income is not represented solely by the contents of his pay envelope or the figures on his salary check, highly important though these are. His real remuneration is a matter of the commodities, the services, and the well-being which his wage can purchase. The prices of the goods and services which he requires are therefore of vital concern to him, since by rising they deprive him of his little comforts or even of the veriest necessities, while by falling they bestow unhopd for plenty and tempt him to extravagance.

In the dark ages of economic theory it was thought that "industry made possible the payment of only a limited wage and that it was not the fault of the employer if this amount was so low as to make it scarcely possible for the laborer to live, even in the dirtiest and meanest fashion."¹⁰ Nowadays, the industry which cannot or does not provide a "living wage" for its employees is coming to be regarded as a parasite on society, since the wage-earners are partially dependent on private beneficence or on public charity for their continued existence. The more progressive employers consider that a living wage for each and every worker is a necessary cost of production.

Progressive Australia has adopted as the main principle of wage regulation the doctrine that "even the humblest worker ought to receive a wage which will afford him 'reasonable standards of comfort' in regard to all matters comprised in the ordinary expenditure of a

¹⁰ Edie, L. D., *Economics: Principles and Problems*, p. 369. New York: Thomas Y. Crowell Company, 1926.

household.”¹¹ In thus establishing wages, in principle at least, at a level somewhat higher than the minimum actually necessary for physical existence, they have boldly invaded the competitive arena and have sought to rescue the badly mangled wage-earner from the savage teeth and the cruel claws of our *laissez-faire* régime. Theirs is not an attempt either to abolish or to supersede competition; it is merely an effort to restrict its activities to free play *above* but not *below* the subsistence level.

As cost of living is increasingly becoming a factor in wage adjustments, both here and abroad, more and more attention is being given to its measurement. If all prices fluctuated simultaneously and uniformly throughout the entire country, cost of living would not be a problem. But wages rise or fall at one time, salaries at another, farm products may drop sharply while rents mount to the skies, till the worker is dizzied by the kaleidoscopic values of the economic universe. The measurement of these price changes is thus no simple matter and cannot be accomplished by the tyro; it constitutes a knotty problem even for the seasoned student of economic trends and tendencies. The measurement of living costs necessitates a consideration of three complex factors: (1) the size and composition of the family unit whose cost of living is to be determined; (2) the standard of living of the group under consideration; and (3) a technique for measuring and expressing variations in price levels from time to time or from place to place.

Since these three factors have an important bearing on teachers' salaries, they will be considered in some detail.

¹¹ *Report of the Australian Royal Commission on the Basic Wage*, p. 17. Melbourne, 1920.

How Many Persons Must the Wage Support?

In industry it has been assumed quite generally that the workingman's wage must support four others besides himself—his wife, and three children under fourteen years of age. Whether or not this "typical family of five" is the proper unit for wage apportionment in industry (and there is good reason to believe that this fictitious figure will be abandoned even here in the near future), it is manifestly unrepresentative of the teaching profession. More than eighty per cent of the teaching personnel in our public schools are women, the vast majority of whom are single and living away from home. The single woman living away from home is thus most representative of the teaching profession and is usually regarded as the basic or typical teacher. Her needs, accordingly, are usually given greatest consideration in establishing budgets and calculating living costs.

In constructing the New York City salary schedule McGaughy¹² adjusted salaries in each school division to the needs of those teachers whose living cost was highest and who were considered indispensable to the success of the educational program. Women were regarded as the indispensable group in the elementary school, while a small percentage of men was considered indispensable in the high school. In order to secure and retain able men teachers in the high school, it was thought necessary to pay them enough to enable them to live normally, that is, to marry and rear children. The minimum salary for the men was therefore set at the lowest level on which a

¹² McGaughy, J. R., *Teachers' Salaries in New York City*, p 145. Distributed by Bureau of Publications, Teachers College, Columbia University, 1927.

man could support himself, a wife, and one dependent child with a fair degree of comfort. Because of the New York State law requiring equal pay for men and women with equivalent qualifications, doing equal work, the same salary granted men high school teachers had to be allowed to women high school teachers. In general, the author believes it unfair to the community to adjust all salaries to meet the needs of such a small percentage of the total personnel, and favors instead a basic salary which provides generously for the single woman teacher living away from home, together with higher salaries for men—or, better still, equal pay coupled with family allowances.¹³

What Standard of Living May the Worker Be Expected to Maintain?

In attempting to discover what it actually costs a particular group of wage-earners to live, their living costs may be studied from either of two angles:

1. Analysis of expenditures

To determine what the worker or his family actually spends, regardless of the return in goods and services.

2. Maintenance of a specified standard of living

To ascertain the money cost of a hypothetical budget which is based on a wholly theoretical concept of the needs of the individual or his family.

The former method of attack either assumes that the worker's existing standard of living is satisfactory or it

¹³ See following section on "Family Allowances" and the succeeding chapter on "Equal Pay."

disregards his standard of living altogether. It also fails to take into account the fact that actual expenditures depend on available income, personal preference, managerial skill, and current prices of commodities and services. For purposes of wage adjustment, therefore, this type of cost of living study is inferior to the second type, which undertakes to determine the cost of maintaining a specified standard of living.

The use of the second technique necessitates first the construction of a budget specifying in detail the various commodities and services which go to make up the accepted standard of living for the worker under consideration. The budget items must then be carefully standardized and the local retail prices of a large and representative sampling¹⁴ of them must be secured. These prices are then "weighted" according to their relative importance in total consumption (as determined by an analysis of actual expenditures, as established by scientific tests of needs, or as arbitrarily assigned by expert opinion) and are combined to secure one final figure which will express the cost of living. Cost of living, as measured by this technique, is thus a balanced combination of average retail prices,—and it is a fair test of the absolute adequacy of wages or salaries to the extent that the theoretical budget used reflects the needs and tastes of the group for which it is designed.

Little has been done in the United States in studying the living costs of groups maintaining the higher standards of living, partly because price fluctuations are not a life and death matter with them as is literally true of

¹⁴ The magnitude of the task usually makes it impractical to price *all* the items in the budget.

the lower classes, and partly because the higher the scale of living, the more difficult becomes the problem of constructing an adequate budget and properly weighting the items therein. The establishment of a defensible budget constitutes by far the most vexing phase of the entire problem. As we ascend the living scale, there is more and more opportunity for choice and for the expression of individual taste; utility as a criterion of selection becomes less and less important and other standards based on consumption data, where available, or on personal judgment must be resorted to.

Since as yet no one has determined at what standard of living teachers can work most effectively, it becomes necessary arbitrarily to assign to them that standard which appears, subjectively, to be most appropriate. Harry¹⁵ discusses the various standards of living as follows:

"There are . . . about five different levels or standards of living recognized, although there are no sharp dividing lines between the various levels. These five standards of living are: (1) The pauper or poverty standard; (2) the minimum of existence, or subsistence standard; (3) the minimum of health and decency, or living income standard; (4) the minimum of comfort, or 'American' standard; and (5) the luxury or cultural standard.

"On the pauper level the individual is not on the basis of permanent self-support. On the minimum of existence level the individual can maintain himself physically unless an emergency, such as sickness or accident, occurs. No allowance can be made on this level for recreation of any type

¹⁵ Harry, David P., *Cost of Living of Teachers in the State of New York*, pp. 14-15. Teachers College Contributions to Education, No. 320. New York: Bureau of Publications, Teachers College, Columbia University, 1928.

that costs money without making inroads on the physical welfare of the individual. The minimum health and decency standard gives an allowance for sufficient food and shelter, for clothing that is comfortable, for a degree of recreation and miscellaneous services. Since the standard of living maintained by all but the most unskilled workingmen is above these three levels, the school-teacher is considered at least as demanding the fourth level.

"The minimum of comfort standard of living has been called the 'American' standard of living, because it is the standard of most skilled workingmen of the United States. The budget would allow for the following:

1. Food: adequate for nourishment, with some possibility of choice.
2. Shelter: safe, physically and morally, sanitary, with some privacy for individuals and some degree of comfort.
3. Clothing: suitable for the work which has to be done, comfortable for the climate, with opportunity for choice and beauty.
4. Surplus: for saving and for well-being, for the spiritual, mental, physical, and social sides of life.

"The luxury or cultural standard is the above with more choice, more comfort, more beauty, and a great deal more of the saving and well-being part of the standard."

Having accorded the teacher the minimum comfort standard of living, it becomes necessary to delve into the perplexing problem of what commodities and services are implied by "a reasonable standard of comfort." To go into this matter in detail at once opens the way for heated arguments about whether the teacher requires six dresses or seven, whether her blouses shall be of silk or of cotton, and whether her winter coat shall serve for two seasons or

three. In order to dodge these big controversial issues and to short-cut what would be a very laborious task, a common criterion for judging the absolute adequacy of the teacher's salary is the proportion of her income expended for board and room. (These two items of the budget are selected as being most basic, most nearly stable, and most readily calculable.) In general, if more than half of the teacher's salary is required for food and rent, her income is considered too low, since the balance left is insufficient to provide properly for the remaining items of her budget.

Although investigations of the cost of living of workmen's families made by the United States Bureau of Labor Statistics and the National Industrial Conference Board allot two-thirds of the total budget to food and rent, this proportion is much too high for teachers. The budgets worked out so painstakingly for the manual laborer's family are not applicable to the teacher's standard of living. In the first place, many items, such as savings, further education, books and magazines, travel, and vacations, which occupy an important place in the teacher's budget, play a very insignificant part or are entirely omitted in the wage-earner's budget. Moreover, notable qualitative differences exist, especially in the matter of clothing; society would not tolerate for a day the teacher who came to work dressed like a painter, a plumber, or a mechanic. In the third place, the teacher is rarely able to effect the little economies expected and allowed for in the workingman's family. Teaching is considered a full-time job, and the school-teacher should not be expected to spend her leisure time making her own clothes, doing her own laundry, cleaning, and cooking, going to "sales," or

in other ways expending time and energy to save a few pennies here or a dollar there. Finally, living away from home as a rule, she is unable to pool her expenses with those of others in the family. Hence, fifty per cent of her income for board and lodging is a fairer proportion for her than the frequently quoted sixty-six per cent, and may be regarded as the upper limit of expenditure on these items even for the beginning teacher.

Of course, the use of ratios and percentages as measures of living costs is really begging the question, since the items which experts find so difficult to prescribe and standardize admittedly constitute such a substantial portion of the teacher's budget and may very well fluctuate considerably in price without being reflected in comparable changes in the cost of food and rent. In the absence of other data this scheme will serve as a method of determining the minimum, but it should be recognized as only an expedient and an approximation.

How May the Cost of Living of a Group of Workers Be Compared from Time to Time for a Given Place or from Place to Place at the Same Time?

In order to make comparisons readily, a system of index numbers has been evolved whereby the average cost of a list of items for a certain period may be expressed as a percentage of the average cost of the same items for another "basal" period. Thus the cost of living in 1930 may be expressed by the index number 167, indicating that goods and services which could be obtained for \$1.00 in 1913 (the basic year) cost \$1.67 in the year 1930. Similarly, living costs in New York City might be compared with living costs in San Francisco, although more

attention has been given to the time series, which is the only one that has been regularly maintained. Various organizations, notably the National Industrial Conference Board and the United States Bureau of Labor Statistics, and the economist, Paul H. Douglas, have compiled such indexes, usually as bases for wage-adjustment.

"The purchasing power of the dollar" is the reciprocal of a cost of living index number, and as such its accuracy as a measure of price levels is conditioned by the reliability and validity of the index number from which it is derived. Rigorous maintenance of the same standards from time to time or from place to place, together with an adequate and representative sampling of the budget items on which prices are secured, will insure a high degree of reliability. Validity is dependent on a sufficient knowledge of the standard of living and the consumption of the group in question to insure proper selection and weighting of the multitudinous budget items. For this reason, the more homogeneous the group whose cost of living is being studied, the greater will be the validity of the forthcoming index number *for them*, and the less applicable the index number to other groups with different standards of living. In this connection it should be remembered that almost all the cost of living studies which have been made in the United States have been for laborers, where the great concern was to establish a minimum standard of health and decency. Hence the capricious dollar, whose vagaries students have been at such pains to chart, is not just any dollar, the kind you and I try vainly to keep in our pocketbooks, but very definitely the Workingman's Dollar. And as such, its ability to buy groceries and provide low-grade housing is

far better known than its effectiveness in purchasing board and lodging, clothes, recreation, higher education, and miscellaneous sundries.

FAMILY ALLOWANCES

Students of the problem of wages, and especially of the relationship between cost of living and wages, have become increasingly dissatisfied with the widespread tacit acceptance of the "typical family of five" as the unit for wage apportionment. They contend not only that the family of five is a mathematical fiction, unrepresentative of the population and economically unsound, but also that the whole principle of a uniform family—of five, or of any other size—is inhumane and socially indefensible.

Douglas¹⁶ and the National Industrial Conference Board¹⁷ have used the 1920 census figures to show how small a proportion of American families fit the standard description. Bowley and Rowntree¹⁸ have discovered this standard to be equally unrepresentative in England. While economists in Australia, England, and the United States agree that even if the family of five *were* typical, it would be impossible to pay every adult male a wage sufficient to maintain this "standard family," even on the subsistence level, because the total wage bill would exceed the total national dividend. And since there is not enough to go around thus lavishly (?) among male

¹⁶ Douglas, Paul H., "Is the Family of Five Typical?" *Journal of the American Statistical Association*, September, 1924, pp. 314-328.

¹⁷ National Industrial Conference Board, *The Cost of Living in the United States*, p. 18. New York: National Industrial Conference Board, Inc., 1926.

¹⁸ Quoted by Rathbone, Eleanor F., *The Disinherited Family*, pp. 16-20. London: Edward Arnold & Company, 1924.

workers, if equal pay for women based on men's wages were insisted on, the discrepancy would be still greater.

Obviously a wage which is just adequate for a family of five is unnecessarily generous for a smaller family and far too meagre for families with many children. Few would quarrel with a system which gives the wage-earner who has no children a substantial margin over and above bare existence, were it not for the fact that the surplus which he enjoys is necessarily counterbalanced by a serious deficiency among the large family groups. The inflexibility of the uniform family assumption squanders thousands of dollars on phantom dependents while it works untold hardships on real mothers and children. If cost of living is to be a basic criterion for wage-adjustment, the only socially and economically feasible plan is an arrangement whereby amount of income varies with size of family.

As a substitute for the present devious and inequitable arrangement, "endowment of motherhood," has been advocated as the fairest and simplest means of meeting the cost of rearing the new generation. Society would thus recognize the economic value of bearing and rearing children and would pay for this service directly rather than, as now, thrusting the burden of its support willy-nilly on the shoulders of the male parent. A system of family allowances usually contemplates the payment of a wage sufficient only for the needs of the workingman and his wife (real or imaginary)¹⁹ with additional sums for the maintenance of each dependent child to be paid directly

¹⁹ "The provision for phantom wives may be defended on the ground that a man who has not a wife to keep has to pay someone to do his cooking, washing, and housekeeping for him, whether it be a landlady, a mother or some other woman relative." (Rathbone, *op. cit.*, p. 20.)

to the mother. These sums, called variously "maternity benefits," "family allowances," etc., are to be provided either by the state or from a common fund in each industry, raised by taxing each individual employer in proportion to his total wage bill. It is not proposed that each employer look after the needs of his own laboring force, lest there be discrimination against the very group the plan is designed to help, namely, employees with large families. The size of the grants, the conditions upon which they are made, and the method of payment permit considerable variation in the application of the principle and largely determine the degree of benefit accruing from the arrangement.

As a rule, children are the only dependents considered, not merely because of their large numbers and their helplessness, but primarily because they are to be the men and women of tomorrow whose youth should be protected against poverty, disease, and exploitation, in the interests of the future of society. Special cases of adult misfortune and genuine need may be cared for by social insurance or by self-sacrificing relatives; thus the embarrassment and the fraud that would follow recognition of adult dependency will be eliminated.

Experiments with the family wage in France, Belgium, the Netherlands, Germany, and elsewhere indicate that the plan is fast winning the approval of the working classes, without incurring the enmity of employers or resulting in the dissolution of business. Where it has been tried, the fear of the neo-Malthusians and the hope of the Imperialists that such a stimulus would cause the birth-rate to increase rapidly have both proved to be unfounded.

The teaching profession appears to offer an excellent proving ground for this plan in the United States, for four reasons: first, because the small size of teachers' families would prevent financial strain in spite of their higher standard of living; second, because education is a state function making it possible to handle the entire system of family allowances through the State, without imposing on the local community and without necessitating elaborate propaganda to secure local approval; third, because of the agitation for equal pay²⁰ on the part of women teachers and their sympathizers; fourth, because of the great concern expressed by many educators over the small proportion²¹ and inferior quality of the men teaching in our public schools.

The author frankly believes the principle of direct provision for mothers and children to be sound socially and economically, and considers the family wage plan superior to the present system of unequal pay for men and women. Having removed the *bête noir* of family support by this means, equal pay would be not only possible but highly desirable from every standpoint.

²⁰ See section on "Equal Pay Legislation," p. 45.

²¹ See pp. 39-40.

CHAPTER III

EQUAL PAY

THE problem of equal pay has long been a sore point with feminists. Indeed, it is scarcely surprising that a woman who does the same work as a man, who works as hard, as long, and as effectively as he does, day in and day out, should resent the fact that he receives half again as much salary as she does. Feminine indignation at this state of affairs seems the more righteous in light of the fact that not all men have dependents, whereas many working women are partially or wholly supporting others. In many localities women have organized to combat this patent injustice, adopting as their slogan, "Equal pay for equal work."

But their case is not so simple and clear-cut as might appear at first glance. The problem of equal pay is inextricably bound up with two factors: (1) the proportionate distribution of the sexes in industry, and (2) the question of family allowances. The first of these factors is concerned with the supply and demand of women as compared with men in teaching, and this in turn is largely dependent on the supply and demand of men as compared with women in every other occupational field. A comprehensive discussion of equal pay must therefore consider these two factors.

SUPPLY AND DEMAND

Teaching, long the only respectable way in which a woman might earn her living, has been crowded with feminine applicants. Even today conservative parents who are willing for their daughter to teach, raise all manner of objections to her entering a less ladylike or less dignified occupation. Entrance to the other professions necessitates far more training, entails an initial starvation period, requires greater ability, and is quite likely to postpone marriage or interfere with it. Furthermore, the men already established in the other trades and professions either look askance at women entrants or evince actual hostility toward them; fear of wage undercutting, of special privileges, of increased competition, or of other dangers leads the men to band together into a solid phalanx to resist the threatened feminine invasion. Employers frequently hesitate to introduce women into a hitherto masculine domain because of their irregular attendance, restricted working hours, high marriage mortality, or the effect on the morale of the men. Thus a powerful array of forces combines to shunt the feminine industrial horde away from many of the fields and into such typical occupations, as telephone operator, nurse, stenographer, and teacher.¹

¹It can be argued that women are taking all sorts of business and industrial positions in increasing numbers. But the laments of feminists indicate only too clearly that such progress as women have made in the industrial world has been beset with tremendous obstacles, and that real equality of opportunity is still only a dream. Considerably greater personal ability is necessary for a woman to secure an important post than is required of a man. The spectacular business success of a few gifted women has given rise to the misconception that women in general are holding their own in competition with men in most vocations.

Fortunately, there is a large demand for women teachers. The lack of confidence in women as a sex, which the public shows in its reluctance to employ a woman lawyer, physician, or architect, does not prevent them from sending their children, both boys and girls, to a woman teacher. With the abandonment of corporal punishment as the chief means of maintaining discipline, physical strength is no longer an essential attribute for teachers, and economy-loving school boards have accordingly welcomed women candidates. Moreover, the appalling amount of teacher turnover in many communities increases the normal demand for teachers of both sexes. The reprehensible practice of using teaching as a temporary pot-boiler, a stepping-stone to another profession, or a stop-gap till matrimony,² is responsible for a goodly number of vacancies each year.

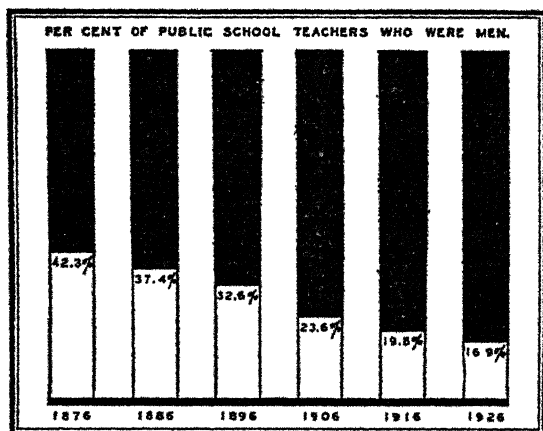
But the demand for women teachers is by no means inexhaustible. In fact, the nation is becoming less and less able to care for the annual crop of normal school and college graduates dumped on the educational market each year. In New York City at the present time literally hundreds of eligible candidates are clamoring for teaching jobs. The relative ease with which training standards are being raised in all parts of the country is an indication of the generous supply of teachers. In many states the supply of women teachers already far exceeds the demand for them.

What, then, of men teachers? During the past half

² The annual exodus due to marriage alone was responsible for 21 per cent of the total turnover in New York State in 1925-1926. (Elsbree, Willard S, *Teacher Turnover in the State of New York*. Teachers College Contributions to Education, No. 300. New York: Bureau of Publications, Teachers College, Columbia University, 1928.)

century there has been a steady decline in the proportion of men teaching in our public schools. Chart I shows the dwindling percentage of men public school teachers, beginning with 42 per cent in 1876 and dropping to 17 per cent in 1926. At this rate there is grave danger that women will drive men out of the classroom altogether and

CHART I



From Phillips, Frank M., A Graphic View of Our Schools, p. 47, 1927. By courtesy of the publishers, Houghton Mifflin Company.

that in a few more decades the genus, male teacher, will be extinct.

Perhaps, you say, this will be all to the good. Here is a sphere peculiarly suited to feminine talent, and since women are still unwelcome in many parts of the business world, why not give them absolute sway in the classroom? Not only would this simplify the problem tremendously, but it would effect a considerable saving in the school budget.

The author believes that such a policy would be a very

grievous mistake. There is no scientific evidence pointing to the superiority of either sex as teachers. Presumably, each sex has a unique and indispensable contribution to make to the education of children. In preparing children for life in a coeducational world, it would seem desirable to give them the advantage of both feminine and masculine points of view, rather than to subject them at an impressionable age, and for an extended period of time, to the influence of either sex alone. A 50-50 ratio between men and women teachers would be ideal, but as this is usually impracticable, it is urged that not less than 25 per cent of the teaching staff in any school system be men. Incidentally, a substantial proportion of men benefits the women teachers by strengthening the bargaining power of the entire group. Through their larger contacts with other men in civic, business, and fraternal organizations, men teachers have an opportunity to influence those who control the community purse strings. Women do not have this opportunity. However transitory this state of affairs may be, it is of some importance at present.

The problem of the man teacher is first and last financial. If teaching does not pay him enough to maintain a respectable standard of living, he will engage in a more remunerative occupation; this is exactly what most of the better grade of men have been doing for a number of years. Many communities recognize that the law of supply and demand makes it necessary to pay men more than women in order to secure equally capable individuals, and accordingly, these communities differentiate between the sexes either openly on the schedule or informally in practice. A questionnaire study conducted

by the National Education Association³ found that in 908, or 59 per cent, of the 1532 cities replying, there were positions in the school system in which men received higher salaries than women of equal training and experience. Typical provisions in local salary schedules for giving men extra pay are quoted by Morris⁴ as follows:

"For the purpose of equating supply and demand differences between male and female teachers, all male teachers shall be upgraded five years with reference to both minimum and maximum salaries."

"The salaries of principals, supervisors, teachers in special departments and men employed in high schools will be set by the Board of Education."

"Add: For men not to exceed \$250.

For married men not to exceed \$500.

For department heads not to exceed \$300."

"Men teachers, other than principals, shall receive an additional \$30.00 per month."

"The Board of Education believes that a considerable per cent of the teachers in the upper grades and in the high school should be men, and having found from experience that they are more difficult to obtain, reserves the right to pay an additional amount above the schedule when necessary to secure the services of exceptionally well-qualified men for the grades mentioned."

Even this financial differential has not made teaching sufficiently alluring to attract the ablest men to the profession. The quality of American men public school

³ National Education Association Research Bulletin, Vol. VI., No. 4 (September, 1928): *Practices Affecting Teacher Personnel*, p. 246.

⁴ Morris, Lyle L., *The Single Salary Schedule*, p. 69. Teachers College Contributions to Education, No. 413. New York: Bureau of Publications, Teachers College, Columbia University, 1930.

teachers⁵ (with numerous individual exceptions) indicates only too clearly that the cream of the sex has been diverted into other callings, and that in all too many instances the less able, less desirable men have been attracted to and have remained in the low-paid field of teaching.⁶ In many communities the typical woman teacher is superior to the typical man teacher both scholastically and socially. What an anomaly, then, to pay more for a mediocre product than for a good one! This financial differential represents the market value of sheer masculinity as opposed to femininity in teaching. It follows, *a priori*, that if an inferior man costs more than a superior woman, a really capable man teacher will be still more expensive. As long as women applicants so greatly outnumber men in the profession of teaching, and as long as school boards desire to have a substantial proportion of able men on their faculties, the operation of the principle of *laissez-faire* will result in higher salaries for men than for women.

FAMILY SUPPORT

The second reason for the double standard of pay in the teaching profession is the plea that a man needs more money than a woman because he has a family to support. Since the job of bearing and rearing children receives no direct remuneration, it must be supported indirectly by giving the husband a salary large enough to

⁵Teacher is here used in the narrow sense and does not include administrative and supervisory officers.

⁶At any given time there are always some first-rate men teachers, but their ability and ambition are such that as a rule either they are soon promoted to administrative posts or they leave teaching to enter another line of work.

maintain himself and his dependent wife and children as well. To deny the necessity for this is to deny that the service of the mother in the home is as valuable as the work of a teacher in the school. Women who insist on equal pay under the present régime do so at the expense of their married sisters who are engaged in the unremunerative task of raising a family. The only feasible way of reconciling both claims, that is, of giving equal pay for equal work and still provide adequately for mothers and children, is to establish a system of family allowances.⁷

Direct provision for mothers and children would make possible a strict application of the principle of equal pay, without injustice to the married man and without unduly increasing instructional cost. Education would gain in efficiency, since it would for the first time be possible to select all candidates for teaching positions on the basis of personal and professional qualifications only, without being biased by considerations either of sentiment or of economy. While such an arrangement would deprive the single man of his unwarranted affluence, it would probably in the long run be to the advantage of all men teachers. The existence of a double standard of pay in any occupation is always a menace to the higher paid; and the greater the differential, the greater the menace. Economy is the slogan of all industrial managers, and those who control the public schools are no exception to the rule. As long as women can be hired for less money than men, men are in a precarious position, since financial exigency may at any time impel the school board to

⁷ For a full discussion of family allowances see Rathbone, Eleanor F., *The Disinherited Family*; and Douglas, Paul H., *Wages and the Family*.

replace many or all of its high-paid men with low-paid women.

Any attempt to interfere with the blind economic forces of supply and demand which are responsible for the present scheme of unequal pay must consider this matter of family support. Equal pay legislation is desirable and justifiable only when it is accompanied by adequate provision for mothers and children.

EQUAL PAY LEGISLATION

Organized effort and strong feminist opinion, however, have been sufficiently powerful in some states to push through equal pay legislation. At the present time (1930) ten states⁸ and the District of Columbia have equal pay laws on their statute books. Illustrations of typical equal pay laws follow:

Females employed as teachers in the public schools of this state shall in all cases receive the same compensation as is allowed male teachers for like services, when holding the same grade certificates.

School Code of California, 1929, Chap. VIII, Art. 1.

In the employment of teachers in the public schools in this state, no discrimination shall be made in the question of pay on account of the sex . . . of the applicant for the position of teacher, when the persons are equally qualified, and the labor is the same.

Wyoming School Laws, 1923-27, Sec. 191, p. 68.

It shall be unlawful for any board of school directors in

⁸ These states are: California, Maryland, New Jersey, New York, Oregon, Nevada, Louisiana, Texas, Washington and Wyoming. In a few other states the equal pay principle applies to minimum salaries established by law and to the salary schedule for rural teachers.

fixing the compensation of any teacher in the public schools of this state to discriminate between male and female teachers on account of sex: Provided, that this act shall not affect any contract entered into prior to the date of passage thereof. (L. '19, p. 55, sec. 1)

Code of Public Instruction, State of Washington,
1923, 311, p. 120.

It shall be unlawful for the State Superintendent of Schools or any of his assistants, and for the Board of School Commissioners of Baltimore City, or for any superintendent or assistant employed by said Commissioners, and for any superintendent or commissioner of public education in any of the counties or municipal corporations of the State of Maryland, and for any assistants employed by them or either of them, to make any distinction or discrimination in favor of or against any teacher who may be employed in any of the public schools of this State, or of the City of Baltimore, or of the various counties or municipal corporations of this State, on account of sex, it being the intent and purpose of this Act that the provisions thereof shall apply with reference to the appointment, assignment, compensation, promotion, transfer, dismissal, and all other matters pertaining to the employment of teachers in the public schools of the State of Maryland, the City of Baltimore and the various counties and municipal corporations of the State of Maryland.

Maryland School Laws, 1924, Chap. 233.

In most of the communities in these states, however, the equal pay law is being evaded. This in itself is sufficient to cause profound dissatisfaction among the women teachers and to engender a sex antagonism that is fatal to harmony and cooperation among the members of the staff. Communities where equal pay is actually and whole-heartedly in effect are so few and far between

that it is impossible to speak with certainty concerning the effect of this plan on the morale of the teaching staff. Presumably, the knowledge that they are not being discriminated against on account of the unalterable fact of their sex would stimulate the women on the staff to put forth their very best efforts and would thus improve the morale of the entire group.

Offsetting this very desirable effect of equal pay, however, are some decidedly undesirable results, so the problem almost becomes one of choosing the lesser of two evils. Assuming that the school is devoting the proper proportion of its budget to teachers' salaries and that the local schedule is reasonably adequate with respect to cost of living and salaries in comparable communities, equal pay legislation forces the local board of education to adopt one of four possible alternatives. These alternatives and their respective effects are given in outline form as follows:

ALTERNATIVES NECESSITATED BY EQUAL PAY LEGISLATION FOR TEACHERS, AND THE EFFECT OF EACH

ALTERNATIVE I—*Lower men's salaries to level of women's.*

Effect A. Withdrawal of men from profession or locality.

Results:

1. One-sided education of children.
2. Teaching less attractive to women because of lack of men colleagues.

Effect B. Deterioration in quality of men teachers.

Results:

1. Children taught by inferior men.

2. Teaching less attractive to women because of inferior class of men colleagues.

Effect C. Limitation of male teachers to single men or transient men.

Results:

1. High turnover.
2. Lack of professional interest because of transiency.

Effect D. Reservation of all high-paid administrative and supervisory jobs for men.

(Note: Any one of the above effects or a combination of two or three of them might follow the adoption of this alternative.)

ALTERNATIVE II—*Raise women's salaries to level of men's.*

Effect: Large increase in instructional cost, which must be met in one or more of the following ways:

1. Higher school tax rate.
2. Fewer teachers.

Results:

- a. Heavier teaching load.
 - (1) Larger classes.
 - (2) More classes per teacher.
 - b. Curtailed instructional program.
 - (1) Elimination or reduction of the offering in music, arts, physical training, etc.
 - (2) Elimination of extracurricular activities.
 - c. Less individual work.
3. Cheaper teachers.
 - a. Less well-trained.

- b.* Less experienced.
 - c.* Inferior personality.
 - d.* Inferior mentality.
- 4. Artificial turnover.
Constant replacement of high-paid teachers with low-paid teachers.
- 5. Economy in other items of the school budget.

ALTERNATIVE III—*Establish salaries at some intermediate point.*

This will introduce some of the ills of each of the above alternatives, the only difference being a matter of degree. Any decrease in salaries will adversely affect the men; any increase in salaries will raise instructional costs.

ALTERNATIVE IV—*Evade issue by giving men extra jobs, thus making the work of men and women actually or nominally unequal.*

Effect: Continuance of former system of unequal pay.

The above list of effects is, of course, a statement of probabilities, not certainties. It is entirely possible for an individual community to make the transition from unequal pay to equal pay without experiencing any of the dire results predicted above. That equal pay legislation has not provoked a greater outcry from the local communities affected may be attributed to one or more of the following causes:

- 1. The issue was evaded by giving men teachers extra jobs, thus making the work of men and women actually or nominally unequal and continuing the old arrangement of unequal pay.

2. Raising women's salaries did not impose a great financial burden on the community for the following reasons:
 - a. All salaries had been too low previously,
or
 - b. School income was substantially increased without raising the school tax rate through:
 - (1) Additional state aid, or
 - (2) Rapid increase in total assessed valuation,
or
 - c. A few communities were both willing and able to meet the larger bill for salaries by raising the school tax-rate.

All things point to the conclusion that *at the present time* society has more to lose than to gain from equal pay legislation. In general, the most vociferous proponents of equal pay are either ignorant of the possible and probable outcome of forcing the issue or are so intent upon securing their own selfish ends that they have shut their eyes to the chain of unfortunate consequences that would follow.

If able men are to be attracted to the profession, unequal pay appears to be a necessary expedient until such time as conditions in all occupations make the supply of men and women teachers approximately equal; and when that happy day arrives, equal pay legislation will be superfluous. Moreover, unless some system of maternity benefits accompanies the establishment of equal pay, or is evolved independently, unequal pay will be a social and economic necessity for family support.

CHAPTER IV

TYPES OF SALARY SCHEDULES

UNDOUBTEDLY the ideal basis for determining teachers' salaries would be teaching efficiency; in other words, pay every teacher according to her results in the classroom. If this were possible, boards of education could disregard such factors as training and experience (which are only means to an end), set up certain objectives and desirable outcomes of teaching, and pay teachers on an output basis. This would require not only the ability to measure units of pupil achievement, attitudes, moral qualities, good habits, and the like, but also the ability to determine the specific contribution of individual teachers in producing these desirable attributes in children. But since our educational ideals are still somewhat nebulous and our measuring instruments crude or entirely lacking, administrators have for the most part used indirect methods of gauging teacher efficiency or have employed wholly different criteria for determining teachers' salaries.

Present-day salary schedules may be classified into two general types: those based upon position held and those based upon professional preparation. The former, which is the traditional type, is now in operation in by far the greater number of communities in the United States,

though the latter type, which is of comparatively recent origin, has increased markedly in popularity since 1918.

THE POSITION TYPE SCHEDULE

The theory underlying salary schedules based upon type of position is that the various teaching positions in the school system differ widely in the degree of skill and the amount of training required of teachers. Formerly, it was thought that anyone could teach little children, that the more mature and advanced the pupil, the more difficult the task of teaching and the greater the preparation required of the teacher. The teacher's pay was therefore graduated according to the grade taught; inexperienced teachers were started in at the first grade and gradually promoted through the primary and the grammar schools to the pinnacle of achievement (and salary), the eighth grade. Nowadays, progressive educators regard that sort of scheme as little less than barbaric, and, believing that the primary grades are fully as important and as difficult as the upper grades, they have quite generally eliminated disparity of pay within the elementary school. Differences in salary still persist, however, between the elementary school, the junior high school, and the senior high school the country over, based on practically the same reasoning as was responsible for distinctions from grade to grade. Whether this is an anachronism or a justifiable differentiation is still a debatable issue.

Little is heard today of the argument that secondary school instruction requires greater intelligence, personality, or character on the part of its teachers than is either necessary or desirable in teachers of elementary

school children. Moreover, most educationists agree that there should be a difference in the *kind* of training for elementary and secondary teachers, and they are in substantial harmony concerning just what kind should be provided for each group. The two points of major dissension, then, are the relative difficulty of teaching in the grades and in the high school and the optimum amount of training needed for teachers in each school division.

Proponents of the position type schedule claim that high school teaching is more difficult than elementary teaching. This matter of the difficulty of the task may be considered from two points of view. On the one hand, it is argued that high school teaching is harder than elementary teaching; that a much wider background of subject matter is necessary for teachers of the older pupils; that teaching methods have not been so well developed nor courses of study so thoroughly worked out in the high school as in the grades; that supervision is rarely provided for secondary teachers to the same extent as for elementary teachers; and that discipline is more difficult among adolescent pupils than among small children. Thus greater initiative and ingenuity are required of high school teachers, more knowledge and skill are necessitated, and more responsibility is placed on their shoulders than is the case with grade teachers. (This in turn supports the contention that longer preparation is necessary for the former group than for the latter.) On the other hand, many people believe that high school teaching is more arduous and more exacting than teaching in the grades; that the advanced content of high school subjects requires more daily preparation on the part of the teacher than is required in the elementary

school; that marking papers is a decided burden in the high school; that extracurricular activities absorb more of the high school teacher's time; and that the larger number of contacts which high school teachers must make with the pupils takes a greater toll of energy than is required of teachers in the elementary grades. Hence it is argued that the more arduous the task, the greater should be the compensation.

The problem of what constitutes adequate preparation for elementary and high school teachers is inextricably bound up with the whole question of compensation. It is commonly believed that two or three years of normal school training is sufficient to equip the elementary teacher to perform her task successfully, whereas the high school teacher is not thought to be adequately prepared unless she has had at least four years of higher education. Since four years of college represent a much greater investment in time, money, and energy than two or three years of normal school training, it is argued that high school teachers should be paid more than elementary teachers. Moreover, some of our most thoughtful educators are seriously questioning whether our colleges and schools of education are now prepared to offer elementary teachers significant professional training beyond that afforded by two or three years of normal school. Teacher-training institutions have not yet clearly demonstrated their ability to increase teaching efficiency through extensions of their curricula, and until the courses of study of these institutions have been subjected to a rigid evaluation, or, preferably, to scientific experimentation, conservative communities will be reluctant to pay for additional training beyond the present level.

Proponents of the position type schedule also point out, and with considerable justice, that this kind of schedule makes proper allowance for conditions of "supply and demand." Every superintendent knows that certain positions are more difficult to fill than other equally important posts, because of the scarcity of well-trained, competent candidates in certain fields. Teachers of vocational subjects, for example, are frequently in considerable demand by agencies outside the school; this demand makes it necessary to pay these special teachers higher salaries than their equally capable academic colleagues. The position type schedule makes it easy to care for this economic factor.

THE PREPARATION TYPE SCHEDULE

The second type of schedule, the preparation type, is frequently referred to as the "single salary schedule" because the same schedule applies to all teaching positions. The fundamental principle underlying this schedule is that teachers should be paid on the basis of amount of training, irrespective of position held. The chief advantages claimed for this kind of schedule are the following:

I. Ease of Administration

Since amount of training and experience are the only two factors commonly used to determine salary, it is a simple matter to place teachers on the scale.

II. Fairness

The amount of compensation is directly related to the time, money, and effort invested in training.

III. *Encouragement Offered Teachers to Teach in the Positions for Which They Are Best Fitted*

The essence of the single salary schedule is that it does not discriminate between teaching positions. This permits the assignment of every teacher to the kind of work which she can best do and in which she is most interested, and allows for subsequent adjustment of position where desirable, since salary is not a desideratum.

IV. *Incentive to Further Training*

Since amount of further training is a major determinant of salary, every encouragement is offered to the teacher to continue her training. The great army of public school teachers flocking to universities for summer school work within the last few years is doubtless due in part to the increasing adoption of this type of schedule.

Little scientific evidence has been collected to show the superiority of one type of schedule over the other. From the standpoint of administration, there is no argument in favor of one rather than the other, since the two types are equally easy to operate. In the matter of cost the advantage is theoretically in favor of the position schedule. Actually, however, Morris¹ found that the percentage of the total current expenditure devoted to teachers' salaries was no higher in cities using the single salary schedule than in cities having the position type schedule. He concludes from this that in all probability funds have not been available to carry out all the pro-

¹ Morris, Lyle L., *The Single Salary Schedule*. Teachers College Contributions to Education, No. 413. New York: Bureau of Publications, Teachers College, Columbia University, 1930.

visions in the single salary schedule and that superintendents have found it necessary to employ various devices to keep the costs down. This, of course, is scarcely an argument to prove that the preparation type schedule is as economical as the position type, for if successfully used, it most certainly will not reduce costs. Finally, there is no scientific evidence to show that high school teaching is more difficult than elementary teaching. The problem is thus boiled down to the issue of training.

The author believes that elementary teachers should be as well trained and efficient as those in the high school. Current psychological dogma declares that the early years of childhood are by far the most important for habit formation and the development of attitudes. Moreover, all children pass through the lower grades, whereas by the time high school is reached, the ranks have been noticeably depleted through economic circumstance and limitations in mental ability. Elementary teaching is doubly significant, then, in that it makes a more indelible impression and reaches a larger number of children than high school teaching. Incidentally, a greater amount of general education for elementary teachers, in addition to professional preparation, would not come amiss, since they must meet parents and the general public and would therefore be benefited by further training which is not too narrowly technical.

For those who concur with the author in the desire to see as competent a personnel in the elementary school as in the high school, the crux of the issue lies in the ability of the single salary schedule to attract capable individuals to the elementary field and to retain in the lower grades ambitious, skillful, and highly trained teach-

ers. The weakness of the position type schedule is that by putting a premium on high school teaching, a constant temptation is offered to elementary teachers to desert the field for which their training, experience, and interest best fit them, in order to obtain the superior rewards of the upper school years. Any salary schedule which deprives the elementary school of its best teachers is to be deplored.

As applied on the field, however, the single salary schedule still leaves much to be desired. In the first place, far too little attention has been given to the type and quality of the teacher's training and far too much emphasis has been placed on the amount of training. Superintendents of schools have been so delighted by the alacrity with which teachers have met the training requirements for increased compensation that they have frequently lost sight of the fact that the character of the training received is even more important than the quantity. This situation can be largely controlled through careful attention on the part of superintendent, principal, and supervisors to the courses taken by teachers. This does not mean rigid prescription of subject matter; it does mean a careful evaluation of the teacher's preparation at the time of selection and subsequent supervision of her program for further study. To do this intelligently, the superintendent must be familiar both with the courses offered in colleges and universities and with the needs and weaknesses of individual teachers. In no other way can the board of education be assured that additional training will result in improved teaching.

A second difficulty, which is not inherent in the schedule itself, is frequently encountered on the field. In the

effort to keep down instructional costs, boards of education tend to employ new teachers with minimum qualifications to offset the high salaries of those in the system who have secured additional training. Where there is a high turnover this practice precludes any considerable gain in the average level of training for the teaching staff as a whole. If the minimum entrance qualifications for teachers are reasonably high, however, this problem is more apparent than real. Indeed, there is much to be said for an arrangement which provides both room and incentive for professional growth.

A third problem in administering the single salary schedule is that as a rule it cannot be applied impartially to all teachers in the system, since it frequently is not in harmony with the operation of the law of supply and demand. The scarcity of various special teachers, particularly of teachers of vocational subjects in the junior and the senior high schools, makes it inexpedient for a school system to adhere strictly to a policy of paying all teachers on the basis of training and experience only. The same difficulty arises in the case of men teachers and, in fact, in all those positions where competition is unusually great. Under such circumstances, conditions of supply and demand cannot be ignored if the school system wishes to procure and retain competent teachers in all grades and departments.

ANNUAL INCREMENTS

Either of the foregoing salary schedules may be subdivided according to the scheme of granting annual increments. These increments may be either automatic or dependent upon the efficiency of the teacher.

Automatic increments have the virtue of being impartial, thus removing all possibility of political pressure in the determination of salary increases and eliminating petty jealousy and bickering among teachers. This plan makes teacher-rating unnecessary for salary purposes, thus relieving the supervisory corps of a substantial burden. If increments are regarded as a return on the teacher's investment in training, they constitute dividends to which she is entitled and as such should be automatic and proportionate to the amount which she has invested. Furthermore, the regularity of the advances makes budgeting much easier in that the salary bill for each ensuing year can be estimated more readily and more accurately. Finally, automatic increments are so simple to administer that the schedule can easily be handled by a clerk.

On the other hand, there is grave danger that a system of automatic increments will effect a very undesirable leveling in teaching skill. The terms of the schedule assure the teacher that in order to win the regular salary increase, she need demonstrate only as much efficiency as will insure her reelection for the coming year. All effort over and above this amount is expended in vain as far as financial reward is concerned and is therefore quite likely to be regarded as wasted energy. A few teachers will continue to exert themselves to the utmost and will develop, regardless of special monetary stimulus; but most of them are human, and in the absence of specific financial incentive are prone to fall into a rut or just to mark time.

To avoid the "deadly uniformity" which is claimed to be inseparable from the plan of automatic increments,

various schemes have been devised for paying teachers according to degree of efficiency.² The success of such arrangements depends entirely on the accuracy with which teacher efficiency can be gauged. We may either attempt to estimate this indirectly through such indications of professional alertness as the number of educational books and magazines read, lectures and courses attended, projects undertaken, and so on, or we may take the bull by the horns and rate teachers by subjective standards. The use of indirect methods is open to the criticism that if objective, they are too indirect and have too low a correlation with teaching efficiency to be valid as measures for it; if wholly or partially subjective, they have all the weaknesses and little of the strength of direct rating.

An important objection to rating for salary purposes as usually administered is the fact that a genuine spirit of cooperation between supervisor and teachers is made impossible. Instead of feeling free to discuss her difficulties and problems with the supervisor and asking for help, the teacher tries to hide her weaknesses, minimize her faults, and cover up her failures. This not only renders rating more difficult, but tends to defeat the primary purpose of supervision. The only way to surmount this difficulty is to separate completely the function of supervision from that of rating by assigning the two jobs to different persons.

Rating scales and efficiency score-cards may help somewhat to refine the process of rating, but in their present stage of development they are not of great value. Faith in the integrity of the rater is absolutely essential, since

² See following chapter on "Rating Teachers for Salary Purposes."

nothing will kill the morale of the staff more speedily and certainly than a feeling that favoritism is being shown. Furthermore, if the rater is not at least as progressive as the most progressive teacher in the system, sad injustice will be done. And finally, sufficient time must be devoted to the task to make sure that the rater witnesses a fair sampling of each teacher's work. This presupposes an adequate and highly competent supervisory staff.

Because teacher-rating is filled with many dangers and pitfalls, even when all these precautions have been taken, a combination of the two methods (automatic and merit) of apportioning increments has been suggested by those who consider each plan unsatisfactory in its pure form. One such scheme would be to advance new teachers automatically for the first two or three years, after which salary advances would depend upon a demonstrable increase in efficiency. This would allow new teachers a reasonable period for adjustment and would give the critic an opportunity for longer observation and a better basis upon which to judge. A second scheme would superimpose the merit plan upon the automatic scale by providing a small regular increase for every teacher and by granting additional sums to the more deserving in proportion to their efficiency. Still a third plan contemplates two or more halts in the salary schedule. All teachers with the same qualifications advance automatically at the same rate of speed up to the first halt, which might well come at the end of the third year, but only "good" and "excellent" teachers pass this point. The second halt comes several years later, after further automatic salary increases, and is passed only by the "excellent" teachers.

These last two types of combinations make use of merit-rating without placing undue emphasis upon it.

The author believes that the most desirable method of granting increments lies part way between the automatic plan and the combination types outlined above. For the majority of teachers, increments should continue to be automatic; for the small minority whose work is clearly below standard, increments should be withheld altogether or the amount left to the discretion of the superintendent of schools. As is pointed out in the following chapter, merit-rating for purposes of salary determination has not proved particularly successful in most of the communities where it has been used,—and it is indeed questionable whether such nice distinctions as are necessary if salaries are to be graduated to correspond to teaching efficiency can be satisfactorily made for some time to come.

SPECIAL PROVISIONS

Certain special features which are supplementary to the standard position or preparation type of salary schedule should also be considered by the student of schedule-making. Chief among these are bonuses for further study, the supermaximum salary, and the indeterminate or indefinite maximum.

Bonuses for Securing Additional Training

In recent years, following the rather common practice prevailing in industrial concerns of granting supplemental bonuses⁸ to workers as an incentive to increased efficiency,

⁸ For a discussion of the bonus provisions made by industrial concerns, see *Supplemental Bonuses for Wage-Earners, Supervisors, and Executives*. New York: National Industrial Conference Board, Inc., 1927.

many school systems have developed a plan of special rewards for those teachers who spend their summers or their Saturdays in professional study at a college or a university. It is quite common for school systems to grant a stipulated sum (frequently \$50 or \$100) over and above the regular salary to each and every teacher who attends summer school. Sometimes this bonus is dependent upon the approving of the teacher's program of study by a supervisor or principal; more often it is granted automatically whenever the teacher obtains a specified number of college credits. The soundness of the bonus system has been seriously questioned by many careful observers, and their objections have provoked considerable discussion of the principles which should underlie salary schedules.

One of the chief reasons for the prevalence of the bonus-for-summer-school-attendance is the effort of superintendents to use this system as a lever in wresting additional salary for teachers from a niggardly board of education. Given an adequate salary schedule, resort to a device of this sort is no longer necessary, and the question resolves itself into this: Does summer school attendance improve the work of a teacher sufficiently to merit special compensation beyond her regular annual increment?

In order to answer this question, it is necessary first to consider the part which training plays in the establishment of a modern salary schedule. As a rule, the amount of preparation which a teacher has had determines the place of initial entry into the schedule. Annual increments are given for the increased skill which each year of experience (up to some limit) produces. The larger

increments and the higher maximum which usually accompany higher levels of training imply that greater training enables an individual to profit more from a given amount of experience.

Additional training—whether obtained at summer school or through extension or Saturday courses—is related in one of three ways to these established bases for determining salary. It may affect one or more of the following:

1. Initial placement on the scale.
2. Rate of improvement.
3. Extent of improvement.

If the additional training is for the purpose of making up a deficiency which the board has overlooked or temporarily allowed, there is no justification for extra compensation. The teacher was placed higher on the scale in the beginning than her training warranted, and subsequent study is merely supplying a lack.

If the extra training is to maintain the level of efficiency normally expected of teachers, additional salary is not justified. Every professional worker has the responsibility of keeping abreast of new developments in his field. Perhaps the teacher can best do this by attending summer school, perhaps such progress involves professional reading or research. But to propose that the school board pay a bonus to the teacher for doing what is commonly expected of an alert, professional worker is to deny the adequacy of the salary schedule proper. If it is desirable or necessary for teachers to attend summer school once every five years in order to keep up-to-date professionally, then this factor should have been a consideration in estab-

lishing the main structure of the salary schedule, and should not be superimposed as a bonus.

As mentioned before, a large proportion of teachers take courses only remotely connected with the work they are doing in their own communities. Unless a carefully planned system of supervision has been worked out, a board of education has no assurance that the money expended as a bonus for summer school study will result in the improvement of teaching. Teachers should not be denied the opportunity to change their field of work, but to ask the board of education to reward them for so doing is scarcely defensible. Special exception should be made of those cases where the board of education requests or urges a teacher to study some particular field in preparation for a special type of work. If, for example, the superintendent asks a teacher to take a course in curriculum revision in order that she may later supervise the reconstruction of the local courses of study, the school board should properly pay all her summer school expenses.

Finally, training which is appropriate in quality and sufficient in quantity to effect a real advance in either rate of improvement or extent of improvement justifies and requires extra remuneration. To be recognized financially, such training should consist of a program of study of scarcely less than four summer sessions, or the equivalent of a full year at a college or a university. If the work taken has been approved by the local supervisors and the superintendent, the school board has reason to believe that the teacher has attained a higher level of efficiency and merits a substantial increase in salary. In the preparation type schedule this should take the form

of a transfer to a higher training level rather than of a bonus.

The Supermaximum

Another device for rewarding professional interest, which also gives financial recognition to distinguished service, is the supermaximum salary.⁴ The supermaximum, as its name implies, provides one or more additional salary steps beyond the normal maximum established for the majority of the teaching staff, for the elect few who are fortunate enough to qualify for it. The number of teachers who can secure this extra compensation is necessarily limited, either informally in practice or formally in the schedule itself, since otherwise the supermaximum would soon become the regular maximum for the entire personnel. Eligibility is usually restricted to those with the greatest amount of training who have already reached the normal maximum for their respective positions and who have displayed superior teaching ability. The supermaximum thus affords financial recognition for a combination of professional preparation, length of service, and excellence of performance.

The problem of the supermaximum is primarily one of administration, of selecting the individuals who are to reap its benefits. Most educators agree that in principle

⁴According to a study made by the Research Division of the National Education Association, 449 cities in the United States, or 20.3 per cent of all those included in the study, reported a supermaximum salary. In 20 per cent of the cities having this provision the basis for qualification was the acquisition of additional professional preparation. Length of service and merit-rating were also reported as being extensively used in selecting the teachers who were to receive the higher rewards. (National Education Association Research Bulletin, Vol. VI, No. 4: September, 1928. *Practices Affecting Teacher Personnel.*)

the supermaximum is sound, both logically as a reward for conspicuous merit and psychologically as a stimulus to greater professional activity, but they differ in their opinions about its practical desirability. Proponents of the scheme maintain that although the merit factor involves teacher-rating, it does not entail all the host of difficulties attendant upon annual rating for salary purposes, since the number of teachers concerned is quite small and their work can be evaluated over a period of years. Opponents of the plan question whether the professional stimulus of the supermaximum is not more than offset by the likelihood of maladministration and by the dangers of errors in selection and of selecting too few; thus the supermaximum would become either too easy of attainment or discouragingly inaccessible. They also consider that the supermaximum is too likely to be adopted as a compromise measure by parsimonious communities who are reluctant to establish the regular maximum as high as would be desirable. The author believes that in most communities the advantages of a supermaximum tend to outweigh its disadvantages.

The Indeterminate Maximum

Schedule-makers are so accustomed to thinking in terms of a minimum, a maximum, and stipulated annual increments that the proposal to have no fixed maximum whatever comes with something of a shock. Yet there are countless business and commercial organizations which place no formal check on the upward progress of their employees' salaries, where in fact as well as in theory "the sky's the limit." Of course, the only reason for establishing a formal maximum for teachers at all is

to set an outside limit to the community's expenditure for teachers' salaries. If educational funds were unlimited, there would be no occasion for this precaution; but with an inelastic school income fixed by a popularly determined tax-rate and a given amount of local wealth, most boards of education consider it advisable to place an upper limit upon school expenditures of every sort. The "indeterminate maximum" is therefore not likely to appeal to any but the wealthiest communities, at present, because of the feeling that the cost of its support may prove so great that recourse to the people for deficits would sooner or later be necessary.

The most characteristic and distinctive feature of the indeterminate maximum is its continuousness. As long as they remain in the system, teachers can always look forward to salary increases, either annually as in Bronxville, New York, or at longer and longer intervals as in Providence, Rhode Island.⁵ The indeterminate maximum is still in its infancy, and the pioneer experiments with it in these two cities will bear watching.

⁵ For indeterminate maximum provisions in these cities, see Appendix, pp. 259 and 263.

CHAPTER V

RATING TEACHERS FOR SALARY PURPOSES

THERE is considerable dissatisfaction among many school administrators and school board members with the typical automatic salary schedule which disregards differences in the ability and the performance of teachers and advances them all at the same rate, allowing only for variations in training and experience. Critics point out that this type of schedule tends to reduce all teachers to a dead level of mediocrity because it offers no incentive for improving the technique of teaching. They further assert that it is unsound to reward teachers for superior training when there is little, if any, evidence to show that amount of training and teaching efficiency are highly correlated, and they insist that direct measures of efficiency should be substituted for the indirect ones which now prevail. Most recent salary studies have admitted the theoretical desirability of paying teachers according to the value of their contribution, but few have considered such a plan administratively practical.

There are in the United States, however, a few cities which claim to pay teachers solely on the basis of merit. According to a report¹ of the Research Division of the

¹ *Practices Affecting Teacher Personnel*. Research Bulletin of National Education Association, Vol. VI, No. 4 (September, 1928), pp. 238-239.

National Education Association, this type of schedule was in use in 67 cities in 1927-28. In cooperation with the author, Young² has made a comprehensive study of the administration of this type of schedule in these cities. While one cannot look to current practice for the ultimate answer to the question of how teachers should be rewarded, Young's findings are illuminating and should prove particularly helpful to superintendents and boards of education.

One of the most obvious questions about schedules based on merit-rating concerns the nature of the rating scales used. While practice varies somewhat, the most common device used for rating is a score card comprising from two to twelve general traits or characteristics for which grades or percentages are to be given. The typical scale contains only five general items, which may or may not be subdivided. The five traits or skills most frequently found on the various score cards examined by Young follow in the order of their frequency: technique of teaching, cooperation, personality, scholarship and professional training, and classroom management.

In only a few scales are the traits or qualities carefully defined. Of all the plans submitted from communities using a merit-rating schedule, there were only two forms in which each main trait or skill was fully itemized and in which standards were given for each quality level. The remainder of the score cards were far less comprehensive and the items on which ratings were to be assigned were less well defined. Illustrations of some of the

² For a detailed and comprehensive study of merit-rating for salary purposes see Young, Lloyd P., *The Administration of Merit Rating in Teachers' Salary Schedules*. Doctor's dissertation, Teachers College, Columbia University, New York City.

INSTRUCTIONS

This blank is to be used by Supervisors, Principals and Heads of Departments in giving a general estimate of the work of each regular supply and regularly appointed teacher at the close of each semester (School Regulations Article IV, Sec. 1) and at such other times as may be designated by the Superintendent of Schools.

This general estimate-record simply requires the Supervisor, Principal, or the Head of the Department concerned to place a check (✓) in the appropriate space following the name of the teacher.

A "Superior" teacher is one who possesses the following characteristics (1) a strong and pleasing personality, (2) a right attitude toward her work and her associates, (3) a definite, accurate and comprehensive body of knowledge of her subject and methods of presenting the same, (4) a student of current educational literature and problems, (5) controls easily, instructs clearly, (6) takes suggestions kindly and makes use of them, (7) has unquestioned ability and industry, (8) secures results, (9) is a member of the State Teachers Association, and (10) *has been in the Ithaca Public School System for a period of three years or more* thereby possessing a knowledge of it and has shown a co-operative spirit in further developing the same. A "Superior" teacher may be advanced toward the maximum at the rate of one and one-half (1½) increments per year.

An "Excellent" teacher is one who possesses all of the possibilities of becoming a "Superior" teacher as above defined. The difference, then, between an "Excellent" and a "Superior" teacher will not be in the absence of any of the characteristics set forth in the definition of a "Superior" teacher but rather in the degree of their development. Given the necessary opportunity, experience, and time for further study the "Excellent" teacher under supervision and direction will become a "Superior" teacher. *In order to be marked "Excellent" a teacher must have been in the Ithaca School System for a period of two years.* An "Excellent" teacher may be advanced at the rate of one and one fourth (1¼) increments per annum.

An "Average" teacher is one who possesses the following characteristics (1) a pleasing personality, (2) a right attitude toward her associates and her work, (3) seems to have definite and accurate knowledge of the subject taught, (4) is a student of current educational literature and problems, (5) takes suggestions in the proper spirit, (6) a good worker, honest, dependable, (7) is able to teach all of the work prescribed for her grade, (8) may be a young teacher with little experience, (9) secures passable results, (10) one who may develop into an "Excellent" teacher after having taught for a longer period. *A teacher who cannot rise above "Average" will not be promoted to the "permanent" staff.* An "average" teacher may be advanced one increment per annum or a fraction thereof as the case may be.

A teacher rated as "Below Average" indicates that a serious question is raised concerning one or more of the foregoing characteristics of the teacher; or is convinced that the teacher concerned is so weak in one or more of these respects as to warrant being rated an "inferior" teacher.

A teacher marked "Below Average" the *second year means* that such are *not* recommended for re-appointment. This form is to be used in all cases where the teacher is marked "Below Average."

Note — It is suggested that each teacher secure one of these sheets and rate herself

Recommended by a committee consisting of the Superintendent, Supervisors and Principals and approved by Teachers Committee December 18, 1921

ITHACA TEACHER RATING CARD—REVERSE

ing instrument and following the same procedure obtains approximately the same results. Supervisors must be consistent in the procedure which they follow and under no circumstances must personal prejudice be allowed to enter into the rating. The author realizes that measuring instruments need not be perfectly reliable to justify their use. If they even approximate the truth, they may still be employed advantageously. On the other hand, if the experience of psychologists with rating scales in the army and other subsequent experiments which have been made in this field are indicative of the unreliability of rating scales in general, then the score cards discussed in this

MICHIGAN EDUCATION ASSOCIATION

TEACHER RATING CARD—Long Form

HUMAN SCALE METHOD

Teacher..... Experiences .. Years. Building or Department.....

Quality Groups		1	2	3	4	5	6	7	8	9	10
Letters or Scale Words Indicating Degrees of Quality	Points Assigned to Each Scale Group	Vitality	General Personality	Dynamic Personality	Growth and Progressiveness	Team Work	Attitude toward Children	Preparation	Skill in Control and Management	Skill in Teaching (Technique)	Skill in Teaching (Content)
A or Very Superior.....	60										
B or Superior.....	40										
C or Average.....	30										
D or Inferior.....	20										
E or Very Inferior.....	10										

DIRECTIONS. Use of the "human scale" is strongly urged. (See III and IV on the reverse side of this card). After determining the degree of merit in each quality group, place a dot in each vertical column opposite the proper degree of capability as indicated by the scale words in the left-hand column. (The number of dots placed in each column represents the number of teachers in the group who have attained the degree of merit indicated by the scale word. Very Superior, as that line represents a perfect score). Connect the dots by lines. If it is desired to reach the middle of the scale, the dots should be placed on the middle line. Interpret the total score as follows: 180-200, E, or very inferior; 200-470, D, or inferior; 480-600, C, or average; 600-680, B, or superior; 680-900, A or very superior. 900, perfect score.

Total Numerical Rating { 0 } General Rating { 0 } Date { 0 } Principal or Supervisor.....

Note—The general rating "Average" may be designated "Fair" or "Good" accordingly as it may be low average or high average.

By Courtesy of Michigan Education Association.

Explanation and Direction

I. The rating of teachers in a large number of qualities of merit is not practical in a large system as the details of rating would be too complicated. Moreover the qualities which make most for success are large in their nature and are grasped more fully in the large than in detail. Consequently the qualities enumerated are grouped. Each group should be considered as a unit rather than in detail when the qualities are being measured on the scale.

II General Classification of Qualities and Definitive Terms.

GROUP 1. **Vitality**—Health, physical development, strength, endurance, reserve force, etc.

GROUP 2. **General Personality**—Including moral character (integrity, sincerity, genuineness, soundness of moral principles, correctness of life, sense of responsibility, etc.) inspiration, optimism, reserve (poise, dignity, balance), judicial sense (rational behavior, freedom from impulsiveness and irascibility), address, tact, discretion, judgment, voice, appearance (physical, dress, personal neatness).

GROUP 3. **Dynamic Personality**—Initiative, resourcefulness, leadership, executive capacity, overcoming contracting factors (as unfavorable environment, depressing professional hygiene or affecting conditions, inferiority of pupils, etc.)

GROUP 4. **Growth and Progressiveness**—Professional interest and growth, up-to-dateness, industry.

GROUP 5. **Team Work**—Co-operation with associates and supervisory staff, loyalty, community interest.

GROUP 6. **Attitude Toward Children**—Interest, sympathy, fairness, justice, appreciation of values in child life (physical, intellectual, social, moral).

GROUP 7. **Preparation**—Including refinement, intellectual capacity, academic education, professional training, grasp of subject matter of subjects to be taught and of that of the daily class room work, command and use of English (consider English here in the broad sense including vocabulary, spelling, grammar, oral and written English, ease of expression, etc.).

GROUP 8. **Skill in Control and Management**—To free boys and girls from capricious, whimsical and unreasonable emotional control and to guide them in the practice of conscious reasonable, democratic self-control is an art which every teacher should strive to master. Management includes care of light, heat, ventilation, care of room, routine, etc.

GROUP 9. **Skill in Teaching Technique**—This group should include such points as definiteness and clearness of aim, skill in habit formation, skill in stimulating thought, skill in teaching how to study, skill in questioning, choice and organization of subject matter including relative emphasis, skill and care in assignment, skill in motivating work, attention to individual needs, etc.

GROUP 10. **Skill in Teaching as Shown by Results**—Such points as attention and response of class, growth of pupils in subject matter, completeness and correctness of expression, development of sense of relative values, using of knowledge, development of democratic self-control, development of spirit of inquiry and endeavor, development of initiative, development of habits, tastes and appreciations, development of desirable personal qualities and character, development of special skills.

NOTE—Technique and Results, the latter especially, are groups which rank in importance above all others. Objective measurement of school room products should play a part in determining degree of merit in these two groups.

III. To make the human rating scale proceed as follows: Write down the names of 20 or more teachers whom you know well. Take care to include the names of all sorts of teachers, good, bad and indifferent. Consider these teachers with respect to vitality alone. Select that teacher who in respect to vitality is clearly the very best in the group. Write her name on your own rating card (the one you are to use as a standard of comparison) in the first space in column 1, so that this name stands for the very best example of vitality. Next select from all the names you have written the teacher who is the very poorest in respect to vitality. Write her name on the fifth line of column 1, so that her name stands as the sample of the most inferior vitality that you have encountered among teachers. Next select from the names you have written the teacher who stands approximately midway between the other two. Write her name in the third line under vitality, so that she stands as an example of average vitality. Then in the same way select one who stands midway between the first and third in the column, and another between the third and fifth in the column, and write their names to stand as representative of the superior and inferior vitality respectively. Thus completes the making of the human scale for the first quality group, vitality. Next, making use of the same group of 20 or more teachers, disregard entirely the matter of vitality and consider only the second quality group "general personality." Proceed as before to select five names representing the five different grades of general personality. In the same manner, write in names for remaining quality groups. Bear in mind that each quality group is considered independently of the others and it is entirely possible, and in fact probable, that a teacher chosen to be the standard of a very superior degree of one quality group might possibly be chosen to represent a very inferior degree of some other quality group.

IV. Having worked out the "human scales" for each of the groups of qualities, each teacher to be rated should be compared with the scales of the several groups and the result placed in the proper position on her rating card.

V. **General Rating.** After a careful study of the graph the one making it out should record his best judgment by use of one of the scale words as the **GENERAL RATING** of the teacher in question.

MICHIGAN EDUCATION ASSOCIATION,
Lansing, Michigan.

MICHIGAN TEACHER RATING CARD—REVERSE

TEACHER'S RATING
SCORE CARD

COMMISSION OF PENNSYLVANIA
DEPARTMENT OF PUBLIC INSTRUCTION
TEACHER BUREAU
Harrisburg

Name Last Name First Name School
District County Grades

Subjects

PERSONALITY*	TECHNIQUE**					PUPIL REACTION**				
	Highest	High	Middle	Low	Lowest	Highest	High	Middle	Low	Lowest
Appearance										
Power										
Voice										
Character										
Cooperation										
Score										
PREPARATION*										
Command of English										
Specific knowledge										
General scholarship										
Professional equip't										
Citizenship										
Score										

U. T.—Quantitative translation.
 1 Highest.....5 High.....4 Middle.....3 Low.....2 Lowest.....1
 * Check rating of each quality before making quantitative translation.
 I certify that the above named teacher has taught for ... years ... months under
 my supervision from.....to.....and has received from me a rating of
 Signature of Board..... Official Position.....
 Date.....19.....

PENNSYLVANIA TEACHER RATING SCORE CARD

By Courtesy of State Department of Public Instruction.

DEFINITIONS

I PERSONALITY

1. Appearance—All attractiveness; cleanliness; neatness; appropriateness of attire, posture.
2. Voice—Rate of speech; distinctness of enunciation; flexibility; power—Health, vigor, initiative; command.
3. Character— tact; kindness; optimism; sense of humor, justice; integrity; cooperation—Sympathy; open-mindedness; cheerfulness; loyalty; cordial working relations with pupils, colleagues and superiors.

II PREPARATION

1. Command of English—Clearness, accuracy and fluency of diction; absence of grammatical errors; command of vocabulary; unity and coherence of ideas; appropriateness and effectiveness of language.
2. Specific knowledge—Accuracy, quantity and organization of the lesson; subject matter; knowledge of the child.
3. General knowledge—Breadth of information; sense of relative values; power of logical thinking.
4. Professional equipment—Knowledge of current educational theories; ability to apply them; use of educational psychology, literature and use of educational aids.
5. Citizenship—Sense of civic responsibility; participation in community activities; evidence of right civic thinking and teaching in class room.

III TECHNIQUE

1. Reason conditions—Effective use of materials; other, adaptation of materials and equipment to specific needs.
2. Selection and organization of subject matter—breadthness of aim; limitation to pupils' interests, needs and capacities; skill in questioning.
3. Resources—Scope of preparation; treatment of answers; use of resources—Materials.
4. Motivation—Attention of pupils; appropriate bases; relation of lesson to pupils' interests, use of problem method.
5. Conclusions—Each lesson a unit, pupils' sense of something done; result secured.

IV PUPIL REACTION

1. Efficient functioning of habits and self-control; regularity and good form; respect for self and for the school authorities; skill in the arts.
2. Availability of information.
3. Thinking ability—Recall and selection of significant facts; coherence of ideas; logical conclusions.
4. Expression—Clearness, grammatical correctness, precision and conciseness in use of English; good vocalization and bodily attitudes.
5. Thoroughness—Interest in literature, art and science, etc.; thoroughness in learning.

FOR INSTRUCTIONS IN USING THIS SCALE SEE REVERSE SIDE

INSTRUCTIONS FOR USING THE TEACHER'S RATING SCALE

The efficiency of this scale depends largely upon the extent to which qualitative rather than quantitative values are applied in the preliminary steps. Think of the qualitative values as possessing the following numerical values: very high—5, high—4, medium—3, low—2, very low—1. The value score is purposely omitted from the scale as it is assumed that at least twenty per cent efficiency would be possessed by anyone qualifying at all for the position.

In rating a teacher make the qualitative rating in all the elements of the scale before making the quantitative translation.

When rating several teachers rate all of them qualitatively on each qualification before making the quantitative translation for any one.

The sum of the ratings given under each of the four general qualities is the teacher's final rating.

Try hard not to think in terms of percentages and particularly in terms of the usual passing grade of seventy or seventy-five per cent. The medium grade, according to this scale, is obviously fifty. That is, if a candidate received three in each of the qualities of the scale the total would be sixty points. There would presumably be as many below this point as above.

Be careful not to rate too high. Out of one hundred teachers a normal frequency distribution should show five 5's, twenty 4's, fifty 3's, twenty 2's, and ten 1's. This distribution should not be binding upon your judgment but it is reasonably certain that 5 will occur far more frequently than any other number.

In using the scale for the first time it would be well to select from your experience teachers who would represent each of the five points under each of the qualities of the scale and in rating a particular candidate make a comparison with the person so selected in a standard for the scale.

You may be called upon to rate a teacher you have known only a short time. While longer acquaintance is desirable, the rating scale will enable you to use what knowledge you have to the best advantage.

The purpose of the scale and its utilization is not so much to qualify or disqualify the teacher rated as it is to secure a qualitative basis upon which constructive supervision and assistance may be rendered the teacher rated. It is hoped as soon as possible to have teachers rate themselves and to have these ratings form a definite part in the general rating scheme.

REMARKS. (This space should be used by the scorer in giving additional information concerning the teacher rated and the circumstances of the observation.)

NORMAL DIPLOMA applicants must have the following Character and Experience Records properly endorsed. This is to certify that the Board of School Directors of..... District have employed this applicant for..... annual school terms and have found the said applicant to be a successful teacher and a person of good moral character. As superintendent I concur with this statement.

Signature of Secretary of Board of School Directors.....
 Signature of County or District Superintendent.....
 Signature of School Directors.....
 Signature of Superintendent.....
 Signature of County or District Superintendent.....

Signature of Secretary of Board of School Directors.....
 Signature of Superintendent.....
 Signature of County or District Superintendent.....

* To be used when the applicant has taught in more than one school district.

PENNSYLVANIA TEACHER RATING SCORE CARD—REVERSE

chapter are far too crude for the important function which they are intended to serve.

One can only conjecture as to how valid these rating forms are. Validity is extremely difficult to establish in even our most refined instruments of measurement, and in view of the wide differences of opinion among educators concerning what constitutes teaching efficiency, it is highly improbable that the unstandardized scales now used for rating teachers really measure what they purport to measure.

The reliability of teacher-rating also depends both upon the number of raters and upon the frequency with which ratings are given. In the typical school system, four persons—the superintendent of schools, the building principal³ and two special supervisors (art, music, or physical training)—are responsible for rating elementary teachers. In the junior and the senior high schools the number of raters is limited to two, the superintendent and the building principal.

As is indicated in Table 1, teachers are rated on the average twice a year. In most instances the ratings are made at the close of the semester. It will be noted also that in nearly half the school systems studied, teachers were rated only once a year. This does not necessarily mean that the work of teachers was observed once only during the year, but it does indicate that in all probability supervisors and others responsible for rating did

³ Since in most communities there are several building principals and since standards of efficiency vary with each principal, ratings are apt to be unfair to many teachers. A teacher rated low in one school would perhaps have scored high under a different principal. An analysis of the ratings in East Chicago showed great inconsistency between the ratings of supervisors and those of building principals.

TABLE 1
FREQUENCY OF RATING TEACHERS IN 52 SCHOOL SYSTEMS

Taken from Young's Study

RATINGS PER YEAR	SCHOOL SYSTEMS	
	Number	Per Cent
1	24	46
2	22	42
3	1	2
4	3	6
5	1	2
6	1	2
Total	52	100

Note: The data were incomplete for some cities, hence the variation between the number included in this table and in others.

not specifically consider many items in the score card except on the one occasion when they prepared their rating. When the detailed characteristics and traits of a teacher, together with the practices which prevail in her classroom, are brought under the supervisory microscope only once a year, as is the case in twenty-four of the fifty-two communities referred to in Table 1, there is every likelihood of there being a serious sampling error. Rating is time-consuming and cannot be efficiently performed during one or two classroom observations. There is no single issue in merit-rating which has caused more concern to teachers than the degree of thoroughness with which their work is evaluated. And well may they be concerned, for the indications from the practices reported in most of these school systems show that teacher-rating is decidedly superficial.

Most school systems have abandoned the practice of giving teachers a numerical or percentage rating and have substituted for it broader classifications, frequently designated by a letter, for example, A, B, C, D, and E, or by a descriptive title, such as excellent, superior, good, fair, and poor. Whereas it is very difficult, if not impossible, to determine whether a teacher should be given a percentage grade of 94 or 95, it is far simpler to decide in what broad group or class she belongs. This, of course, does not remove the difficulty of classifying those borderline teachers who do not clearly belong in either of two groups. Chance undoubtedly operates in the disposition of these cases. As will be seen in Table 2, Young found that most school systems classify teachers into four or five groups.

TABLE 2
NUMBER OF QUALITY LEVELS INTO WHICH TEACHERS WERE CLASSIFIED
IN 48 SCHOOL SYSTEMS

NUMBER OF LEVELS	SCHOOL SYSTEMS	
	Number	Per Cent
2	1	2
3	7	16
4	20	41
5	16	33
6	1	2
7	2	4
15	1	2
Total	48	100

Another fundamental issue in the administration of merit-rating is the distribution of teachers on the scale,

that is, the proportion of teachers who are rated excellent, superior, good, fair, and poor. Since the amount of the salary increment is dependent upon the grade which a teacher is given, this problem is of paramount importance both to teachers and to the administration. The assignment of teachers to a grade either above or below the one to which they actually belong defeats one of the major functions of merit-rating, which is to deal justly with all teachers. The opponents of merit-rating have accused superintendents of "over-rating" their teachers (placing too large a proportion of them in the excellent and superior groups) in order to maintain a high *esprit de corps* and to avoid antagonizing them; when the majority of the teachers are happy with their grades, the superintendent and supervisors have little to fear, but when the higher ratings and the correspondingly higher salary increments are reserved for a limited minority, the supervisory staff is likely to be decidedly unpopular.

In eighteen school systems, each using five merit groups, Young found that of 3,308 teachers rated in 1929-30,

- 953 or 29% were rated A or excellent.
- 1,199 or 36% were rated B or superior.
- 860 or 26% were rated C or good.
- 231 or 7% were rated D or fair.
- 65 or 2% were rated E or poor.

This tendency to place a large proportion of teachers in the superior and excellent groups is equally noticeable in those school systems which classify teachers into four groups. The following table shows the distribution of teachers in ten communities using four merit grades.

TABLE 3

DISTRIBUTION OF TEACHERS ACCORDING TO MERIT IN TEN CITIES USING
FOUR MERIT CLASSIFICATIONS, 1929-30

Taken from Young's Study

GRADE	TEACHERS	
	Number	Per Cent
A	492	27
B	918	50
C	341	19
D	80	4
Total	1,831	100

In three other school systems using only three grades, A, B, and C, there was little uniformity in the proportion of teachers assigned to each class. To illustrate, one community with 150 teachers rated 130 of them A, 20 B, and none C,—whereas another school system with 140 teachers assigned 13 A's, 114 B's, and 13 C's.

The bulk of evidence clearly indicates that superintendents and supervisors consider the majority of their teachers to be decidedly above average. This may be an accurate picture in a few exceptional school systems, but one would scarcely expect to find this the case in the majority of communities. Where the number of teachers rated is as large as it is in most of the cities included in this study, the distribution should approach the normal curve.

Since one of the primary purposes of merit-rating is to enable the school administration to apportion the rewards among the teaching staff according to the quality

of service rendered, it is important to inquire as to the differentiation in the salaries of teachers of the various classes or grades. Seventy-five per cent of the merit schedules provide a different increment for each quality level, and while practice varies somewhat in the remaining communities, there is a tendency to grant special rewards to superior teachers and to allow all other classes of teachers the same increment. While the size of the annual increment provided for the various merit groups recognized in the salary schedules varies somewhat among communities, there is a definite tendency toward allowing the A or excellent teacher twice as large an increment as the C or average teacher. In the typical school system having five merit levels, the amounts of the respective increments reported were as follows: "A" teachers—\$100, "B" teachers—\$75, "C" teachers—\$50, "D" and "E" teachers—no increment. Similar differences were noted in the size of the increments in those schedules using three and four groupings.

The most striking feature found generally in all the merit-rating schedules is the smallness of the increments allowed all grades and classes of teachers. One would expect that the size of the annual increment in the merit-rating communities would be approximately the same for the teachers who are rated "C" or "average" as for all teachers in comparable communities using the automatic schedule. It would follow that teachers who are rated "superior" or "excellent" would receive larger increments than are provided for teachers in general under automatic schedules, and that teachers who are rated below "average" would receive a correspondingly smaller increment. Young's findings, however, indicate that such is not the

case; he states that "Only five school systems, or 13.5 per cent of the merit-rating cities reporting, paid their 'average' teacher a larger increment than comparable cities using automatic schedules. Eight, or 21 per cent, paid an equal amount, while 24, or 65 per cent, paid less." Hence a superior teacher in school systems where salary is dependent upon merit is little, if any, better off than an ordinary teacher in comparable cities where the automatic type of schedule is used. This undoubtedly explains in part at least the marked tendency for superintendents and supervisors to rate a large proportion of the teachers "superior" in order that they may receive increments equal to those paid in comparable communities where automatic increases are granted.

There are other important considerations in evaluating the practices prevailing in those school systems that attempt to pay teachers according to merit which are not discussed here. The ability of those entrusted with the responsibility of rating teachers, the real attitude of teachers toward rating systems, and the effect which the use of rating has on the efficiency and professional interest of teachers are problems on which little or no data are available, if indeed obtainable. With the refinement of our measuring instruments and the development of a clearer concept of what constitutes good teaching, the time may yet come when we can measure teaching efficiency with an accuracy which approaches our present measurements of intelligence. In the meantime the author believes there is little if anything to be gained by employing the crude rating devices which are now available.

CHAPTER VI

STEPS IN FORMULATING A SALARY SCHEDULE

IN SPITE of the fact that salary scheduling has advanced to a point where it is frequently referred to as a scientific process, it is still far from the formula stage. To those who insist upon demonstrated facts and objective evidence as bases for all their actions, the process of determining minimum and maximum salaries and the size and number of annual increments will seem at best little more than an intelligent speculation. However unfortunate this may be, school administrators are faced with the practical necessity of formulating some plan for the compensation of teachers and must contend with many problems for which scientific evidence is not now available. Good judgment and common sense are needed at every step of the process. There are, however, a number of guiding principles and techniques which can be employed advantageously in making a salary schedule. It is the purpose of this chapter to point out these principles and to outline the steps involved in setting up a plan for paying teachers.

Step I—Determine policies basic to the schedule

The salary schedule cannot well be divorced from the program of teacher selection and the plan for the improve-

ment of teachers in service. Before the schedule-maker can undertake his task of establishing salaries, the superintendent and the school board must thresh out a number of philosophical questions and come to some decision regarding the qualifications of the teaching personnel with whom they hope to staff the system and the general principles upon which payment is to be based. Training, scholarship, previous experience, sex, and cost of living are all important factors in determining the amount of the salary which candidates for teaching positions are willing to accept. A salary which is satisfactory to a two-year normal school graduate will not be equally attractive to a college graduate. If the community wants secondary teachers with five years of training beyond high school, salaries must be high enough to secure individuals so prepared. School systems which recruit their teachers only from the upper twenty-five per cent of normal school and college students must pay more generously than systems which are not so particular about the scholarship of their staff. Candidates fresh from school cannot command salaries as high as are necessary to attract a more experienced group of teachers. Hence, minimum standards of training, scholarship, and experience should be agreed on for the various positions in the system.¹

Likewise, a policy with respect to the employment of men teachers must be evolved before the schedule can be formulated. Since men teachers are undoubtedly scarcer than women teachers with equivalent qualifications, the school board must choose between a system of unequal pay which will secure a high calibre of both

¹ For the qualifications for the various teaching positions established as a basis for salary revision in Springfield, Mass., see Appendix, p. 24.

men and women or a scheme of equal pay which will probably attract capable women but only mediocre men. The pros and cons of equal pay have already been discussed in Chapter III, so they will not be repeated here. Suffice it to say that this is an issue which must be squarely faced by the board of education.

Another problem which confronts many school systems is the employment of local teachers. Since practically all local teachers live at home and are able to pool their expenditures for food, laundry, recreation, and many other items, with those of their families, they are usually both willing and able to accept a much smaller salary than teachers from out of town. If local teachers are to be given preference over outsiders, salaries can be relatively low,—but if a cosmopolitan group of teachers is desired, salaries will have to be high enough to cover their increased cost of living. Married women teachers, similarly, usually do not have to bear the full cost of their own support and can offer their services for less than the single teacher living away from home. Some decision must therefore be reached concerning the typical group whom the schedule is designed to attract, in order that salaries may be made commensurate with their cost of living.

Finally, the superintendent and the board of education must decide upon the type of schedule which will best serve the needs of the school system. This decision is probably the most difficult and in many respects the most important one which they are called on to make, since the type of schedule has a marked effect upon the professional improvement of teachers in service. It will be necessary for the school board to weigh the advantages

and the disadvantages of the position, the preparation, and the merit schedules and to select the one which seems most desirable.

Step II—Classify the school personnel

As in other modern business organizations, there is considerable division of labor in the public school enterprise. Various classes of workers perform tasks which differ widely in character, in training and skill required, and in responsibility entailed—calling for graded scales of payment. Before an appropriate schedule can be constructed, it is necessary to classify the school employees into several groups according to type of work, amount of training, and degree of responsibility assumed.

The corps of workers required for maintenance and operation and the clerical and secretarial staff are not usually included in the schedule proper, partly because their work in the school is identical with that done in other institutions and the "going rate" of pay tends to prevail, and partly because their work is incidental with and auxiliary to the main function of the school and hence is not of primary concern. But even when the group considered is limited to those directly concerned with the educational program, there is need for subdivision and classification along the lines suggested above.

The grouping for salary purposes will depend largely upon the philosophy of the superintendent and the board of education and upon the type of schedule to be used. If the school authorities accept the theory that elementary teaching is as important and as difficult as high school teaching and requires the same amount of training, it will not be necessary to have separate classifications for

kindergarten, elementary, junior high school, and senior high school teachers. Likewise, elementary, junior high school, and senior high school principals will be classed either separately or together, depending upon the attitude of the superintendent and the board toward the importance and difficulty of these positions. Some school authorities consider that department heads deserve greater remuneration than regular teachers, and that for this reason they should be given a special classification.

While there are some who hold that the element of risk warrants special consideration in planning a salary schedule, the author believes that occupational hazards should be cared for through some form of social insurance and should not be considered as a factor in wage determination. Risk will, of course, affect the supply of trained and competent candidates for a certain position, and thereby exerts an indirect influence on the amount of salary. But as long as school boards are confronted with a long line of hopeful applicants, all apparently well qualified for the job in question, salaries will continue to be low despite the hazard of dismissal.

The scarcity of candidates for some positions frequently warrants a separate classification for certain posts which are difficult to fill, even though the amount of training and skill required and the degree of responsibility involved do not differentiate them from regular positions. In New York City, for example, teachers of atypical children are classified separately because they are scarcer than regular teachers and can therefore command higher salaries. The task of teaching subnormal children is probably no more difficult, certainly no more important, than regular classroom instruction, and the

responsibility assumed no greater, so from the standpoint of abstract justice there is no occasion for a salary differential. If there should come a time when the supply of special teachers is as great proportionately as the supply of regular teachers, the reason for this classification would no longer exist.

The number of groups will, of course, vary from place to place; in general, the larger and more complex the system, the more numerous the classifications. In the schedule proposed recently for New York City twenty groups were distinguished as bases for as many different pay scales. These classifications were as follows:

1. Senior High School Teachers
2. Elementary School Teachers
3. Junior High School Teachers and Teachers of Grades 7 to 9
4. Teachers of Atypical Children
5. Training School Teachers
6. Senior High School First Assistants
7. Elementary School Principals
8. Senior High School Principals
9. Junior High School Principals
10. Assistants to Elementary Principals
11. Assistants to Junior High School Principals
12. Teacher Clerks
13. Clerical or Laboratory Assistants
14. Library Assistants
15. Positions in Special Schools
16. Attendance Officers
17. District Superintendents
18. Examiners
19. Associate Superintendents
20. Superintendent of Schools

A small number of groups simplifies the task of constructing and administering the salary schedule, and is therefore desirable for practical reasons. Wherever differences in training or responsibility distinguish one group of teachers from another, however, a separate classification is advisable. Under some circumstances a scarcity of candidates warrants further subdivision.

Step III—Determine the minimum salary

ABSOLUTE MINIMUM

After the preliminary work of establishing policies and classifying the personnel has been done, the schedule-maker is ready to tackle the job of constructing the scale itself. The first task which confronts him is the determination of a satisfactory minimum salary for the basic group of teachers. Where the position type of schedule is to be used, the basic group will be the elementary school teachers; where the preparation type has been selected, it will be those teachers with the lowest amount of training. To be adequate, the minimum salary must be high enough to enable the community to compete for the abler group of normal school graduates and also to enable the teacher to live on a scale corresponding to her social position in the community. Although salary is not the only desideratum that attracts teachers to a community, it is a very potent factor in the final decision of the ambitious candidate; hence, other things being equal, the community paying the highest beginning salary will be able to skim the cream of the normal school and the college graduates.

Minimum Salaries in Other Communities

The minimum salaries paid in other communities of similar type and size, and especially in municipalities in the immediate vicinity, should be ascertained as an indication of the amount required for the community in question. After a careful study of this information, a tentative minimum for the basic group should be established, relatively high enough to enable the community to compete for teachers on equal terms with its neighbors and peers.

Cost of Living

But the fact that a salary is high enough *relatively* is no guarantee that it is high enough *absolutely*. For a city to exploit teachers because it is not forced by competition from other communities to pay a comfortable wage is, from an educational standpoint, to court disaster. The true test of salary adequacy is the sum total of the commodities and services which the salary will purchase. A second criterion, the local cost of living, should therefore be used in establishing the absolute minimum salary, and the tentative sum arrived at from the above comparison should be increased enough to insure the teacher an income sufficient to supply her needs.

Localities differ widely in the prices prevailing for the necessities of life. Transportation facilities, nearness to markets, size of the community, and innumerable other factors affect the cost of living and determine in no small measure the real worth of the teacher's salary. One cannot assume that because an income of \$1,200 in one locality is sufficient to enable a teacher to live comfortably *there* and to lay aside a small competence against old age, the same salary will provide as generously else-

where. While the cost of living in adjacent communities will not usually differ widely, it is not safe either to assume that there are no differences or to disregard the differences that do exist.

As has been indicated in Chapter II, the public school teacher is entitled to at least the *minimum comfort standard of living*, and should never be expected to spend more than 50 per cent of her salary for board and room. Where more than this percentage is required for food and rent, the remainder is insufficient to provide adequately for the other items of her budget. In his study of the cost of living of teachers in New York State, Harry² allotted 25 per cent of the teacher's total budget to food; 20 per cent to rent; 20 per cent to clothing; 15 per cent to miscellaneous articles and services; and 20 per cent to savings, further education, etc. This represents a theoretical apportionment for the single teacher living away from home who is receiving the minimum salary. A study made by the Michigan State Teachers' Association³ showed that about 45 per cent of the total salary of the teacher in that state was expended for room, board, and laundry. To regard 50 per cent of the basic teacher's budget as the largest proportion which should ever be required for board and room is conservative.

The local cost of living is best secured through detailed questionnaires⁴ sent to the teachers themselves. For purposes of determining the absolute minimum salary, in-

²Harry, David P., *Cost of Living of Teachers in the State of New York*. Teachers College Contributions to Education, No. 320. New York: Bureau of Publications, Teachers College, Columbia University, 1928.

³Michigan State Teachers' Association, Bulletin No. 5, February, 1925.

⁴For sample questionnaire, see Appendix, p. 223.

formation for single teachers living away from home only is required. The method of determining cost of living by an analysis of actual expenditures is open to the objection that outgo is limited by available income and therefore may not be a true indication of the actual cost of maintaining the optimum budget. This limitation, however, is largely offset by the fact that the group studied include teachers who are well along the scale as well as those who are at the minimum. Wherever possible, an independent study should also be made to ascertain the cost of room and board of standard quality.⁵

When a final figure which fairly represents the combined cost of board and room in that locality for the single teacher living away from home has been obtained, it should be multiplied by two. The result will approximate the amount necessary to enable the teacher to maintain the minimum comfort standard of living and will constitute a satisfactory minimum salary for the teaching group on the lowest level.

Moehlman's Index

A technique suggested by Moehlman⁶ for determining the minimum salary is based on the wages paid to unskilled labor. Moehlman holds that laborers' wages are so close to the line of bare existence that they constitute a rather sensitive barometer which should be utilized in establishing teachers' salaries. As a result of an analysis of considerable data, he proposes the following index by which the minimum and maximum salaries for teachers

⁵ For standards for teacher's room, see Appendix, p. 229.

⁶ Moehlman, Arthur B., *Public School Finance*. Chicago: Rand McNally & Company, 1927.

with varying amounts of training can easily be determined.

TABLE 4

MOEHLMAN'S INDEX OF THE RELATIONSHIP BETWEEN LABOR WAGES AND
TEACHERS' SALARIES

*From Moehlman, Arthur B., Public School Finance.
Rand McNally & Company, 1927.*

	MEDIAN	MEAN	MODE	SUGGESTED RELATIONSHIP
Unskilled labor	100	100	100	100
Minimum for teachers				
2 years' training	151	149	150	150
4 years' training	188	192	200	175
Skilled labor	179	--	--	180
Maximum for teachers				
2 years' training	220	233	200	220
4 years' training	300	301	--	300

By using this table of relationships, the schedule-maker need know only the wages paid unskilled labor in the community under consideration in order to establish teachers' salaries. This technique is in no way a substitute for the two previous methods of determining the minimum, but it may be used to supplement them. The reader will appreciate by this time that no single formula can be safely relied upon in establishing minimum salaries, and the wise superintendent will make use of them all.

GRADED MINIMA

While the theory that minimal salaries should vary with amount of training is almost universally accepted throughout the country in both principle and practice, the

actual salary differential which should correspond to each additional year of preparation has not been agreed upon. The reason for relating salary to training is threefold: First, there is a greater scarcity of highly trained teachers than of teachers with the minimum preparation, and the demand for the highly trained teachers appears to be growing. Hence, each additional year of training puts its possessor into a more favorable position competitively and compels more pay from those who would secure her services. Second, if the belief is true that further training increases the efficiency of every teacher, well-prepared teachers contribute more to the educational program than the less well-trained, so that higher pay for the well-prepared teachers is merely just compensation for greater value received. Third, professional improvement represents a financial investment, as well as an outlay of time and energy, which is not likely to be made unless a fair return is assured. Although the second line of reasoning is too intangible to help much in determining the size of the salary differential which each extra year of training merits, the first and the third reasons provide a firmer foundation for establishing gradations in dollars and cents.

Minimal Salaries in Other Communities

The obvious basis for upgrading salaries for those with increasingly greater amounts of training is an analysis of present practice: finding out what neighboring communities are paying and approximating this as nearly as possible. Salary differentials so determined will be at least as attractive as those in competing communities. This method should therefore be used to fix the lower limit of

the minimum salary for each training level or for each higher position above the basic group.

Return on the Investment for Training

Communities that believe in the value of training and wish to encourage more than minimum preparation, however, should apply a further criterion. The size of the differentials between the various training levels should be related to the investment made by the teacher for the additional training if they are to serve as real incentives. If it is less profitable for teachers to secure four years of preparation than three years, the number of four-year trained candidates will dwindle or their quality will deteriorate. For example, a teacher who has had three years of professional preparation and is debating whether to spend \$1,000 for another year of training or to take a teaching position and invest the \$1,000 in a good security paying interest at 6 per cent, can calculate the advantages of each course of action, from the data of Table 5.

Rewards for extra training should therefore take account of the cost of securing additional preparation, and since the teacher is expending time and energy as well as money, they should offer a return which is somewhat larger than that assured by a good commercial investment. An investment in the form of training ought to guarantee an efficient teacher 8 per cent on her money, together with the return of the original investment extended over a period of about fifteen years.⁷ The average cost to the teacher of a year of study will vary considerably, according to the institution attended and the stand-

⁷ There is nothing magical about the number 15. It has been arbitrarily selected.

TEACHERS' SALARIES

TABLE 5

EARNINGS OF TWO TEACHERS WITH DIFFERENT AMOUNTS OF PROFESSIONAL TRAINING

YEARS FOLLOWING COMPLETION OF COURSE	TEACHER X GRADUATE OF THREE-YEAR NORMAL SCHOOL			TEACHER Y GRADUATE OF FOUR- YEAR TEACHERS COLLEGE
	Regular Salary	Investment		Regular Salary
		Principal	Compound Interest at 6%	
1	\$1,500	\$1,000	\$ 60	In college, spending \$1,000
2	1,650	1,000	64	\$1,700
3	1,800	1,000	67	1,900
4	1,950	1,000	71	2,100
5	2,100	1,000	76	2,300
6	2,250	1,000	80	2,500
7	2,400	1,000	85	2,700
8	2,550	1,000	90	2,900
9	2,700	1,000	96	3,100
10	2,700	1,000	101	3,100
Total for ten-year period	\$21,600	\$1,000	\$790	\$22,300
		\$1,790		
		\$23,390		\$22,300
11	\$2,700	\$1,790	\$107	\$3,100
12	2,700	1,790	114	3,100
13	2,700	1,790	121	3,100
14	2,700	1,790	128	3,100
15	2,700	1,790	137	3,100
Total for fifteen- year period	\$35,100	\$1,790	\$607	\$37,800
		\$2,397		
		\$37,497		\$37,800

ard of living maintained by the individual at the time. In most communities, however, a fairly reliable figure can be ascertained as a basis for estimating the return due the teacher.

While the typical salary schedule in operation in America does not encourage teachers to invest money in professional training beyond the required minimum, the argument may be advanced, and with some justice, that teachers in increasing numbers have been securing additional training in spite of the fact that it can be demonstrated to be a poor investment financially. This is partially a result of the increased competition for positions due to an oversupply of teachers, and is partially attributable to the ignorance of teachers concerning what constitutes a paying investment. The greater social prestige of a college education as compared with normal school training, together with the fact that in many cases parents are still paying the bills, may also be responsible for a part of the increase in the amount of preparation of teachers.

The entire amount of the additional compensation advocated for teachers with superior training need not and should not take the form of a differential in the minimum salary; part of it will be embodied in larger annual increments. Just how the sum total should be divided between the two cannot be said with certainty. On the one hand, additional training which is obtained *after* some actual teaching experience is thought to be more valuable than training secured all at once, before coming in contact with real classroom problems. This would suggest a scheme of transfers and graduated increments. On the other hand, young teachers are so uncertain of their own

future that they are primarily interested in *more now* so that rewards which are too far away may not prove particularly tempting. This would favor a marked differential at the start. Probably the golden mean between these two extremes offers the happiest solution to the problem. An initial increase of not less than \$200 for each year of additional training is therefore recommended. In the example shown in Table 5 this differential, which is the usual amount in progressive communities, plus a larger annual increment, is just sufficient to put the two teachers with differing amounts of training on a par financially at the end of about fifteen years.

The above discussion applies directly to the gradation of minimal salaries for the preparation type schedule. It also applies to the position type in so far as the various positions are distinguished on the basis of amount of training required. Special adjustments may need to be made in constructing either kind of scale on account of scarcity of candidates or the relatively greater responsibility of certain posts.

Step IV—Establish the maximum salary

The function of the maximum is twofold. First, it serves as a safeguard to the budget by setting an upper limit to mounting salaries. Second, it is the ultimate financial goal of the teaching staff and as such is a potent factor in attracting ambitious teachers and holding them in the school system. While it is conceivable that the maximum could be set at too high a figure, necessitating a disproportionate amount of public money and paying teachers considerably in excess of their contribution to society, actually there is little danger that the salary bill

will assume such staggering proportions that it will overburden the community financially, and there is little likelihood that the school personnel will be showered with undeserved riches. In fact, teachers have been so notoriously underpaid since time immemorial that the great concern even today is to boost their compensation to a respectable figure.

Probably the wisest order of procedure in communities which have decided upon the single salary schedule is first to establish the maximum for the most highly trained group of teachers, and with that as a reference point, scale downward for those with lesser amounts of preparation. Where the position type is in effect, the maxima for the various classifications are not so closely related and hence may be determined independently of each other in almost any order.

Maximum Salaries in Other Communities

As before, the salaries paid in competing communities should constitute the lower limit for those in the community under consideration, and the tentative figure thus established should be adjusted *upward* as much as necessary to meet other criteria. While theoretically, poor communities cannot be expected to pay teachers as generously as their wealthy neighbors, actually, comparable salaries are much more a problem of interest and desire than ability. Nowhere in the United States are public school teachers being rewarded so lavishly that would-be competitors are hopelessly outdistanced. With the possible exception of rural areas, almost any locality is financially able to employ and retain first-rate teachers.

Table 6 illustrates the use of the comparative method

TABLE 6

MAXIMUM SALARIES OF TEACHERS ACCORDING TO SCHOOL DIVISIONS
1928-1929

Springfield and 40 Cities in the United States with a Population
of 100,000 to 300,000

From Annual Report of the Springfield Public Schools, Springfield, Mass., 1930, Table 1, p. 25

	CITY	ELEMEN- TARY SCHOOLS	JUNIOR HIGH SCHOOLS	SENIOR HIGH SCHOOLS (WOMEN)	SENIOR HIGH SCHOOLS (MEN)
1	Akron, Ohio	\$2,000	*	\$2,800	\$2,800
2	Albany, N. Y.	1,900	\$2,300	2,400†	2,400†
3	Atlanta, Ga.	2,216	2,772†	2,772†	2,772†
4	Birmingham, Ala.	2,250†	*	2,250	2,250
5	Bridgeport, Conn.	3,100†	*	3,100†	3,100†
6	Cambridge, Mass.	1,888	*	2,154	2,900
7	Camden, N. J.	2,400	2,800	3,500	3,500
8	Columbus, Ohio	2,000	2,625	2,625	2,625
9	Dallas, Texas	2,000	*	2,700	2,700
10	Dayton, Ohio	2,200†	2,500†	2,850†	2,850†
11	Denver, Col.	3,080†	3,080†	3,080†	3,080†
12	Des Moines, Iowa	3,000†	3,000†	3,000†	3,000†
13	Fall River, Mass.	1,700	2,520	2,520†	2,760†
14	Fort Worth, Texas	1,700	*	2,000	2,000
15	Grand Rapids, Mich.	2,000	2,500	2,500	2,500
16	Hartford, Conn.	2,400	*	3,900†	3,900†
17	Houston, Texas	2,400	2,500	2,600	2,600
18	Kansas City, Kan.	1,788	1,968	2,508	2,508
19	Lowell, Mass.	1,700	1,950	2,000	2,500
20	Nashville, Tenn.	1,380	*	1,920	1,920
21	New Bedford, Mass.	1,900	2,300	2,700	2,700
22	New Haven, Conn.	1,950	2,100	2,300	2,800
23	Norfolk, Va.	1,500	1,900	2,000	2,300
24	Oakland, Cal.	2,820†	2,820†	2,820	2,820
25	Omaha, Neb.	2,100	*	2,400	2,400
26	Paterson, N. J.	2,800	*	4,200	4,200
27	Providence, R. I.	2,050†	2,800†	3,200†	3,200†
28	Reading, Pa.	2,000†	2,500	3,000†	3,300†
29	Richmond, Va.	1,800	2,103	2,224†	2,224†
30	St. Paul, Minn.	1,000†	2,300†	2,300	2,300
31	Salt Lake City, Utah	2,200†	2,200	2,200	2,200
32	San Antonio, Tex.	2,350†	2,350†	2,350	2,350
33	Scranton, Pa.	2,000†	2,300†	2,400†	2,400†
34	Spokane, Wash.	2,150†	2,150	2,150	2,150
35	SPRINGFIELD	1,900	2,200†	2,500	3,100
36	Syracuse, N. Y.	2,400†	2,800†	2,800†	2,800†
37	Trenton, N. J.	2,800†	3,400†	4,000†	4,000†
38	Wilmington, Del.	1,800	*	2,250	2,250
39	Worcester, Mass.	2,100†	2,550	2,625	3,250
40	Yonkers, N. Y.	2,835†	3,675†	3,675	3,675
41	Youngstown, Ohio	1,900	3,063	3,063	3,063
	Median	\$2,050	\$2,500	\$2,600	\$2,760
	Springfield's Rank	30	23.5	24.5	9.5

* No junior high schools are maintained in these 11 cities. † Supermaximum.

of determining maximum salaries in Springfield, Massachusetts.

Wages in Other Occupations

Communities that desire an able group of teachers must compete not only with neighboring school systems but also with other occupations. The individuals who become teachers might have entered, and for that matter they may yet enter, a different line of work. Intelligence, character, and personality are qualities which are desired in many fields besides teaching, and because these attributes are relatively scarce, their possessors have a variety of lucrative opportunities open to them. Hence, the maximum salary should be high enough to compare favorably with the wages paid in comparable occupations.

Salaries of municipal, state, and government employees are usually procurable. Information about the compensation of private school teachers, trained nurses, certified public accountants, Y.M.C.A. workers, artisans, store managers, and business employees of various kinds should also be obtained, if possible, as a basis for determining an attractive salary standard for teachers. Special consideration should be given in this sort of comparison to differences in native ability, training, and skill required, responsibility assumed, and any "other valuable considerations" accompanying the various positions. Chart XII on page 194 illustrates the use of this technique in establishing the maximum in Holyoke, Mass.

Moehlman's Index

As in the case of the minimum, Moehlman's index of the relationship between labor wages and teachers' sala-

ries can be applied in determining the maximum. As was indicated in Table 4 on page 95, he advocates that the maximum salary for teachers with two and four years of training might well be approximately 2.2 and 3 times, respectively, the local wage for unskilled labor.

Increase in Cost of Living

Before accepting the proposed maximum figure as final, one further step should be taken. A comparison should be made between the tentative maximum and the maximum paid by the same community in previous years to ascertain whether sufficient allowance has been made for the decreased purchasing power of the dollar. The year 1913 is most frequently selected for such a comparison because it has been used as the basic year for several cost of living indexes and because it represents conditions as they existed before the War, when prices and wages were more stable and more nearly normal than they were during or immediately following the War. By referring to a reliable cost of living index⁸ the buying power of the dollar for any year subsequent to 1913 may be found and the relative economic status of the teacher thereby determined over a considerable period.

The fact that \$1.67 was required in 1930 to purchase goods which could have been bought in 1913 for \$1.00 indicates that salary increases received by teachers over this period cannot be interpreted as being "real" increases until their purchasing power has been equated.⁹ For example, a teacher receiving \$1,200 in 1913 was able to

⁸ For cost of living indexes, see Appendix, p. 217; for a discussion of cost of living indexes, see pp. 31 ff.

⁹ For graphic illustration of the difference between "real" and "nominal" salary increases over a period of years, see Chart VII, p. 184.

purchase goods then which would have cost \$2,004 in 1930. If her financial position improved during that period, her salary should have exceeded \$2,004 in 1930.

One should use this technique with discrimination, however, in determining maximum salaries. In the first place, all the index numbers now available are based on budgets for workingmen's families and do not necessarily indicate as faithfully as could be desired fluctuations in the cost of living of teachers. These index numbers should therefore be regarded as approximate rather than accurate methods of discovering "real" salaries. In the second place, the measure of salary adequacy resulting from such a comparison is based on an assumption which is more often false than true, namely, that the salaries paid in 1913 were adequate. In all probability they were decidedly inadequate. The only valid conclusion which this type of analysis enables one to draw is that the economic status of the teacher in a given community has or has not improved during the period in question. Such an analysis also indicates the amount of the change which has occurred. In the third place, the typical 1930 teacher worked several more days per year and was decidedly better trained than the 1913 teacher. The community is therefore purchasing more and better instructional service today than before the War and should expect to pay correspondingly more for it. The higher qualifications of teachers, the longer school year, and the probability that salaries were inadequate in 1913 all testify to the necessity for higher salaries now than formerly, even after due allowance has been made for depreciation in the value of the dollar.

Still another lower limit is provided by this technique

to aid in establishing the maximum. "Real" maximum salaries should seldom, if ever, be lower than they have been in the past; on the contrary, they should in almost every case be substantially higher than they were before the War.

GRADED MAXIMA

The problem of determining a salary maximum for each of the lower levels is much like that of establishing satisfactory differentials between minimal salaries. In the preparation type of schedule the crux of the matter is again a question of offering a suitable return on the teacher's investment for additional training, and also the extent to which the school authorities wish to induce teachers to qualify themselves for the higher training levels. The differences between the maxima for the several training groups will of necessity be larger than the differences between the corresponding minima. Indeed, the successive maxima should be at least four increments apart so that teachers who transfer from one level to the next will not arrive at the new maximum immediately. Determining the actual amount of each maximum in a particular community is a matter of judgment.

SUPERMAXIMUM

If there is to be a supermaximum, it should be added on as a postscript after the regular maximum has been definitely and finally determined. In fact, the question of whether to have a supermaximum should not even be raised until the normal maximum has been fixed, because schedule-maker, superintendent, and school board cannot

help being influenced in establishing the regular maximum if they know that a supermaximum is to be included in the schedule. A high supermaximum should never be regarded as a justifiable substitute for an adequate maximum for the entire staff.

Step V—Determine the number and size of annual increments

After the minimum and the maximum salaries have been determined, it is necessary to decide upon the intermediate steps between these two extremes. Determining the number and the size of annual increments is more than a simple little problem in arithmetic whereby a total amount is divided into a convenient number of smaller parts. Yearly increases may be automatic or they may depend upon the quality of the teacher's work, admitting innumerable permutations and combinations of size, number, and conditions for granting or withholding, to suit special conditions and to serve various purposes. Even where increments are wholly automatic, there are no "laws" or definite rules for their establishment—just a very few general principles by which to determine the optimum number and the size of yearly increases, and increments which depend on efficiency ratings are so very elusive that they will not be considered in this treatise at all.

Number of Increments

It is generally conceded that annual increases in salary should be granted teachers as long as they improve in teaching efficiency, but just how long this improvement continues is still open to question. What little evidence there is indicates that teachers tend to improve with each

successive year of experience up to eight or ten years.¹⁰ In the absence of evidence to the contrary, this figure may be used to set the lower limit for the number of annual increments. Increments should not necessarily be limited, however, to the duration of improvement in teaching efficiency, even if this could be accurately determined; they should, however, be sufficiently numerous to make a career of teaching by providing for salary increases over a considerable period of time. In general, the number of increments should never be less than eight; they should preferably be ten or twelve, or as many more as the community feels it can afford.

There is a growing belief that increments for the preparation type schedule should be progressively more numerous with larger amounts of training. This theory is based on the assumption that well-prepared teachers continue to improve with experience for a longer period of time than those who are less well-trained. Moreover, the better prepared teachers are more valuable; hence the school system is correspondingly more desirous of retaining them on the teaching staff. The author favors the plan of varying the number of increments with the amount of preparation of teachers, regarding eight increments as the minimum for the lowest level. This prin-

¹⁰ The results of reading tests given to 166 classes of third, fourth, and fifth grade pupils in Iowa show that teaching experience up to eight or nine years is valuable, but beyond that there is a distinct loss—although teachers of long experience are “still equal to or better than younger teachers with five years or less of experience.” (Gray, William S., *Summary of Investigations Relating to Reading*, p. 99. Chicago: University of Chicago Press, 1925.) This is an extremely slight foundation upon which to base a policy, but substantiated as it is by expert opinion it constitutes the only tangible indication of the extent of teacher improvement available.

ciple was embodied in the salary schedule recommended for Holyoke, Massachusetts, as indicated in Table 7. In this case, eight, nine, eleven, and thirteen increments were provided for teachers with two, three, four, and five years of training, respectively.

Size of Increments

The proper size of annual increments is likewise something of a moot question. Evenden's pronouncement that increments should approximate 10 per cent of the basic salary¹¹ has been widely quoted and has been accepted rather generally throughout the country. The author concurs with him in the opinion that yearly increases should be large enough to be perceptible in the teacher's budget, believing, however, that this percentage should represent the minimum rather than the optimum size of annual increments.

Increments should vary in size as well as in number with amount of preparation. As suggested before, the salary differentials for the successive training levels should be related to the investment for additional training; coupled with a higher minimum and maximum salary and allowing for variation in the number of increases to be given, increments should be large enough to pay the teacher 8 per cent on the money required for further study plus the return of the original investment over a period of about fifteen years. Modifications in the size of the increments in a preparation type schedule not only make it possible to encourage additional training but also permit the school authorities to regulate to a considerable degree the incidence of future preparation. For example,

¹¹ See Appendix, p. 231, section 7.

increments may be considerably larger and more numerous on the three-year level than on the two-year level and similarly larger and more numerous for the five-year group than for the four-year group; while the differential between the three-year and the four-year levels is negligible, because the superintendent wishes to stimulate both elementary and secondary teachers to secure one year more than the required minimum preparation (two and four years, respectively), but he does not care to encourage more than one year of further study on the part of elementary teachers. Increments may thus be graded to suit local conditions and local policies. In so far as teacher classifications in the position type schedule are differentiated on the basis of amount of preparation, increments should also be graded in size according to years of training.

Increments which are graduated in size with amount of experience are becoming increasingly popular. Such an arrangement increases the holding power of the schedule for the most valuable group of teachers and helps to discourage the entrance of candidates who would use teaching as a temporary pot-boiler or stepping-stone to another profession. Graduated increments are therefore advocated for both position and preparation types of schedule. This principle is embodied in the salary schedule recommended for San Francisco, where the increments increase in size each successive year for the first five or six years, and in the schedule recently recommended for Holyoke, Massachusetts, where the increments for most groups increase in size at the end of each three-year period (see Table 7). In general, if increments are uniform in size throughout the schedule, they should

not be less than 10 per cent of the basic salary for each classification, and if graduated, they should average not less than this percentage.

Step VI—Provide for special positions

After the schedule for the regular teaching staff has been formulated, provision should be made for those groups which are not included in the general classification comprising the vast majority of the school personnel. Principals, supervisors, directors, department heads, school nurses, and a few other officials differ from the regular teaching staff in the amount of responsibility assumed, and they require separate consideration. In some instances superintendents have preferred not to establish formal salary scales for these special groups, believing that the interests of the school system are best served when no restrictions are placed on the compensation of its professional leaders. They hold that budgets are usually flexible enough to allow for the variations in salary which will occur in the absence of a definite schedule and that the number of persons concerned is not large enough to invalidate cost estimates. While there is something to be said for this argument when a schedule for a small community is being planned, it loses much of its force when applied to a large city. Whenever there are individuals with similar qualifications and responsibilities, practical considerations and the necessity of maintaining an *esprit de corps* require a uniform scale of payment.

Even in very large cities, however, it is neither necessary nor desirable to have a separate scale for each classification of the school personnel. Instead, there should be a few basic scales of payment, especially de-

signed for the largest groups in the system, which should also serve for all the other classes of employees, with or without adjustments and modifications. A commendable plan, and one which is used rather widely, is to have a special scale for each of two or three grades of principals, in addition to the regular schedule for teachers proper and to use these as the basis of payment for the remainder of the personnel, with such adaptations as seem desirable to insure adequate and equitable compensation for all. There are several simple methods of modifying the application of the formal schedule for particular groups, chief of which are payment of bonuses, upgrading, and higher initial placement on the scale. Bonuses are stipulated sums of money to be added to the salary called for by one of the regular scales; they may be uniform in size or graduated according to amount of training, experience, or responsibility; they may be automatic or contingent upon fulfilling certain requirements; they may be temporary or continuing. Upgrading signifies classing an individual or group of individuals with those on a higher level than their qualifications justify, and is here used in the sense of giving credit for a greater amount of training than an evaluation of actual preparation would warrant. In schedules where training is an important basis for salary determination upgrading results in more pay for those concerned. Initial placement is a matter of the amount of credit given for previous experience, that is, certain groups of persons may be started at a higher step on the salary scale than their experience warrants. The difference between upgrading and higher initial placement is that in the latter case individuals are placed on the level for which their training or position qualify them and that

they continue on this same level, with the sole advantage of a "head start," while those who have been upgraded continue on the upper level, which usually implies larger increments and a higher maximum than for those on the planes below.

PRINCIPALS

The problem of establishing a salary schedule for principals is considerably more complex than that of determining an adequate wage for teachers. In most communities, principals do not constitute a homogeneous group from the standpoint of cost of living, preparation, or degree of responsibility; this condition makes it difficult to find a satisfactory base upon which to establish a minimum salary.

There are two techniques which can be used, however, in determining principals' salaries, both of which are unfortunately based on present practice and hence are subject to all the weaknesses and defects inherent in the use of this criterion. One of these techniques is the method of comparison. Since competition is just as keen for able principals as for competent teachers, exactly the same sort of comparison should be made of the salaries paid principals in adjacent communities and in communities of about the same size as was recommended when establishing salaries for teachers. Careful consideration should be given to the training requirements that prevail in these communities, in order to make sure that the groups are comparable. This technique is especially valuable for determining the maximum salaries for the several groups of principals.

A second method of arriving at a fair amount of com-

pensation for principals is to determine the ratio between principals' salaries and the salaries of the basic group¹² of teachers in communities of comparable size, and use this as a guide in formulating the new schedule. Whether established consciously or unconsciously, this ratio indicates roughly the relative value which is commonly attached to the position of principal, representing school boards' idea of the difference in the importance of the work of principal and elementary teacher. The use of this technique is greatly facilitated by the fact that the salaries of teachers and principals in the United States have already been collected by the Research Division of the National Education Association and the median salaries and the ratios between the medians computed for communities of various sizes. Table 8, which has been adapted from Table 11 in the National Education Research Bulletin¹³ for May, 1927, gives these ratios in the form of index numbers. While the salaries upon which these ratios are based were those paid in 1926-27, the index numbers are fairly valid even today and probably will still be dependable for some time to come; it is not likely that the ratios will change markedly in the near future in spite of considerable differences in the actual amounts paid. In any event, the trends indicated by the index numbers should not be followed slavishly, but as representative of common practice, they should be taken for what they are worth.

¹² In the position type schedule the basic group of teachers are the elementary teachers; in the preparation type, those with the least amount of training.

¹³ National Education Association, *The Scheduling of Teachers' Salaries*, Table 11, p. 165. Research Bulletin of the National Education Association, Vol. V, No. 3 (May 1927).

TABLE 8

RATIOS BETWEEN MEDIAN SALARIES OF VARIOUS GROUPS OF SCHOOL EMPLOYEES IN COMMUNITIES OF SIMILAR SIZE

Adapted from Table 11, p. 165, National Education Association Bulletin, Vol. V, No. 3, May 1927

CLASSIFICATION	INDEX NUMBER					
	Communities with a Population of					Average for All Communities
	2,500 to 5,000	5,000 to 10,000	10,000 to 30,000	30,000 to 100,000	Over 100,000	
Elementary teachers . .	100*	100*	100*	100*	100*	100
Junior high school teachers	114	112	114	115	112	113
Senior high school teachers	131	130	131	132	129	131
Teaching elementary principals	126	118	125	147	134	130
Supervising elementary principals	197	174	163	193	182	182
Junior high school principals	151	161	189	229	211	188
Senior high school principals	198	220	248	284	250	240

Read table thus: In communities 2,500 to 5,000 in population the median annual salary of elementary teachers (\$1,176†) has been arbitrarily given the value 100. The median salary of junior high school teachers (\$1,346†) is 14 per cent higher than that of elementary teachers and therefore has the value 114; and the median salary of senior high school teachers (\$1,550†) has the value 131, 31 per cent above the elementary median. Read figures for other population groups similarly.

* Arbitrary base.

† Median salary paid in 1926-27.

The ratios given in Table 8 may be used as multipliers in determining minimum and maximum salaries of principals, after salaries for the basic group of teachers have been established. If, for example, the proposed minimum salary for the basic group of teachers in a community of 20,000 is \$1,400, the minimum for supervising elementary

principals might well be established at about \$2,300 ($1.63 \times 1,400 = 2,282$), the minimum for junior high school principals at about \$2,650 ($1.89 \times 1,400 = 2,646$), and the minimum for senior high school principals at about \$3,500 ($2.48 \times 1,400 = 3,472$). A tentative maximum for each grade of principal should be determined similarly, by applying the same multipliers to the proposed maximum for the basic group of teachers. In the case of the maximum, this technique should be supplemented by ascertaining actual salaries in competing communities, as suggested previously, and the highest figures arrived at by whichever method should be accepted as final.

While the index numbers in Table 8 are helpful in establishing principals' salaries in communities where the position type of schedule has been adopted, they do not offer much assistance where the preparation type of schedule is to be used, since amount of training, rather than position held, will be the chief salary determinant for teachers. For this reason another table of ratios (Table 9) has been prepared, based on the salaries paid in eighty-two representative single salary communities, to provide multipliers for use in formulating salary scales for principals when the teaching personnel are classified according to number of years of preparation.

It should be pointed out once more that these ratios represent common practice, which is not necessarily optimum practice, and that at best they serve to indicate general levels rather than fixed amounts. Considerable modification will probably be desirable to adapt the figures arrived at by the use of this technique to local conditions, especially where the size of the supervisory or building unit varies widely. One elementary principal,

TABLE 9

RATIOS BETWEEN MEDIAN SALARIES* OF VARIOUS GROUPS OF SCHOOL EMPLOYEES IN 82 SINGLE SALARY SCHEDULE CITIES

CLASSIFICATION	INDEX NUMBER					Average for All Communities
	Communities with a Population† of					
	2,500 to 5,000	5,000 to 10,000	10,000 to 30,000	30,000 to 100,000	Over 100,000	
Teachers—						
2 years' training ...	100‡	100‡	100‡	100‡	100‡	100
3 years' training	112	109	111	110	109	110
4 years' training	125	127	125	127	118	126
5 years' training	133	143	148	139	140	140.5
Principals—						
Supervising elementary	§	§	177	194	196	181
Junior high school ..	§	§	226	231	236	223
Senior high school ..	219	242	282	303	282	260

* Computed. Based on salary tabulations of the Research Division of the National Education Association, July, 1929

† Cities were distributed as follows: 7 cities over 100,000 population; 19 cities 30,000 to 100,000; 19 cities 10,000 to 30,000; 14 communities 5,000 to 10,000 population; and 23 communities 2,500 to 5,000 population.

‡ Arbitrary base.

§ Too few cases reported to warrant calculating index number.

for example, may be in charge of a seven-teacher school, while another in the same system may be responsible for supervising forty teachers. The variation in principal load cannot be disregarded, yet there is little agreement about the most desirable way of weighting this factor when apportioning salaries. The classification of principals recommended in the Cincinnati Salary Study may prove suggestive for large cities. In this city the Salary Committee proposed that principals be divided into four groups as follows:

<i>Group</i>	<i>In charge of</i>
D	1- 9 teachers
C	10-19 teachers
B	20-29 teachers
A	30 or more teachers

Smaller communities will, of course, have fewer groups and should consider carefully the effect which various plans of grouping will have on the present personnel.

In practice, fewer increments are provided for principals than for teachers. This is justifiable where salaries are graded according to the size of the supervisory unit and where opportunity is given for principals to move from a small school to a larger one. Even with this type of advancement, there should be not fewer than six increments.

SUPERVISORS

While theoretically supervisors should be accorded the same scale of pay as principals in the corresponding school division, it frequently happens that conditions of supply and demand necessitate higher pay for this group. Bonuses or upgrading will be necessary in such cases to attract and retain competent individuals.

DIRECTORS

The term director is applied to so many different kinds of positions, some administrative and some supervisory in character, that the treatment of this group will depend largely on the local situation. Where the qualifications and responsibilities of directors are analogous to those of supervisors or principals, they should be paid correspondingly.

ASSISTANT PRINCIPALS AND VICE PRINCIPALS

Assistant principals and vice principals who are also teachers should be accorded whatever salary they would be entitled to as teachers, plus a bonus which will vary in size according to the degree of responsibility assumed. Where their duties are wholly administrative or supervisory in character the members of this group should be classified with the group whose qualifications and responsibilities are most nearly comparable to their own, with or without a supplementary bonus.

SCHOOL NURSES

School nurses should be put on the same scale as teachers with an equivalent amount of training. From the standpoint of cost of living, nurses should never receive less than the minimum for the lowest teaching group, even though their training may not warrant it. Comparisons with the wages of regular nurses as a basis for salary determination are not recommended because of differences in regularity of employment, hours of work, and living expenses.

EVENING SCHOOL STAFF

Salaries for evening school workers should be based on corresponding day school salaries. The pay of the evening school staff should bear the same relation to the remuneration of the day school personnel as the working time of the former bears to the working time of the latter. By calculating the ratio between the number of hours during which evening school is in session and the number of hours day school is in session, a percentage is

obtained which can be applied to the regular schedule of the day school staff to determine the evening school salary scale. This applies to both teachers and principals.

SUBSTITUTE TEACHERS¹⁴

The position of substitute has attractive as well as unattractive features. On the one hand, except in cases of long absences, much less is expected of the substitute than of the regular teacher, and there is little or no outside work to do, that is, preparations to make and papers to mark. On the other hand, a good deal of versatility is required of the substitute, and discipline is quite likely to be more difficult. The constant moving about from class to class and school to school may be either pleasant or unpleasant, according to the temperament of the individual. Since the advantages and disadvantages of the position practically offset each other and since the qualifications of substitutes should be the same as those of the regular staff, substitute teachers should be paid at approximately the same rate as permanent teachers in the corresponding school division.

MISCELLANEOUS

There still remains a scattering of assorted positions to be provided for. Here again, the same general principle should be applied, namely, the incumbents of these positions should be classed with the group which they most nearly resemble in qualifications and responsibilities; and where some differentiation from the basic scale

¹⁴For prevailing rates of pay of substitute teachers, see City School Leaflet No. 21, *Pay Status of Absent Teachers and Pay of Substitute Teachers*. United States Bureau of Education, Department of the Interior, April, 1926.

is considered desirable, devices such as bonuses or up-grading should be employed to assure a satisfactory level of compensation. Ordinarily, librarians should be grouped with the classroom teachers in the same school group, deans might well be classed with assistant principals, department heads should be given a bonus in addition to their salary as regular teachers, while the training and duties of guidance counselors, visiting teachers, attendance officers, and similar officials, vary so greatly that no general principle can be established for them.

Step VII—Provide for the transition from the old to the new schedule

The work of the schedule-maker is not complete until he has provided for the transfer of the present personnel from the old schedule to the new. There are a few general principles which should be followed when this transition is made.

First, no teacher's salary should be lowered. It frequently happens that some of the teachers in the system are being paid higher salaries than their training and experience warrant. While abstract justice would demand that the salaries of these teachers be lowered to an amount commensurate with their qualifications, a wiser plan is to have this group mark time at their present salary levels until they have fulfilled the requirements for increased compensation.

Second, no teacher should receive less than the new minimum. Since the minimum is based primarily on cost of living, it represents the lowest salary which should be paid to any teacher, regardless of her qualifications.

Third, all increases granted when making the transfer should be appreciable in size. Teachers whose training warrants an advance should be moved to the step of the new schedule whose amount is next higher than they have been receiving; where this is less than the salary to which they would have been entitled under the old scale, they should be advanced to the second higher step of the new schedule above their present salary.

Special consideration is frequently given to teachers of long experience when a new schedule is introduced. Since the older teachers are usually less well-trained than the majority of the staff and hence cannot qualify for the higher levels of the new scale without going to undue effort and expense, it is common to permit them to offer "service credits" instead of part of the preparation required by the new schedule. The author believes this policy to be unsound from an educational standpoint, but recognizes that it may often be justifiable on grounds of expediency.

CHAPTER VII

ESTIMATING THE COST OF A SALARY SCHEDULE

PREDICTING the cost of a salary schedule is somewhat like forecasting the population of a city. So many variables must be considered in each case that the process is exceedingly complicated and the result is at best only an approximation. As long as conditions remain about the same, an estimate based on past trends and tendencies will approach the truth; but when the unexpected happens, when the weight of certain factors changes, or when new elements appear, predictions, forecasts, and estimates fail. Nation-wide economic conditions, new state certification laws, altered policy in teacher-training institutions, increased demands on the school by the public, instruction through movies, radio, and television, or other unforeseeable changes may invalidate the whole salary schedule in a decade. For this reason, cost estimates for more than ten years have little value; indeed, most schedules should be reconsidered, if not revised, after six to eight years.

But cost estimates must be made. And they must be just as accurate as is possible from the nature of the case. School funds are relatively inelastic—hence the board of education must be assured that it can finance the pro-

posed schedule without danger of insolvency and without making inroads upon other items in the budget. It would be unfair and in the long run unwise to propose a salary schedule which requires a disproportionate amount of the tax revenue.

The future cost of some types of schedules is much easier to anticipate than that of others. Schedules with automatic increments proceed with clock-like precision, while schedules where the size of increments depends on extra training or merit lead the accountant a merry chase. The position type of schedule has a definiteness that renders calculation fairly simple, whereas the single salary schedule presents vexing problems in evaluating training and gauging human ambition. To complicate matters further, the question of expansion or contraction in the size of the teaching staff and the problem of teacher turnover thrust themselves into the picture. But with patience, persistence, and considerable figuring, barring Acts of God, fairly dependable estimates of the cost of a given schedule can be made for the ensuing five or even eight years.

POSITION-AUTOMATIC SCHEDULE

To prepare accurate cost estimates for even the position-automatic schedule requires the collection and interpretation of considerable factual information and the observance of a carefully planned procedure. In addition to the proposed schedule itself, the data necessary as a basis for calculations fall under three main heads, as follows:

I. Normal Expansion

A. Number of additional teachers needed annually.

1. Number of teachers in the system for each of the past six to eight years, classified according to salary differentiations (that is, if there is a separate salary scale each for elementary, junior high school, senior high school, special, and men teachers, determine the number of teachers in each of these groups).
 2. Pupil enrollment for the same period, classified according to school division (elementary, junior high, or senior high school).
- B. Point on the schedule where additional teachers are usually introduced.

II. Teacher Replacement

- A. Rate of teacher turnover for the same period (six to eight years), classified according to salary differentiations as for A.1. above.
- B. Causes of teacher turnover¹ by school divisions.
- C. Replacement policy.

Point on the schedule where new teachers are usually introduced.

III. Administrative Policy

Changes in policy which would affect the size or cost of the teaching personnel, as:

- A. Size of classes in each school division.
- B. Enrichment of the curriculum.
- C. School organization:

For example, introduction of Dalton Plan or Platoon Plan.

¹For suggestions as to the classification of the causes of teacher turnover, see Elsbree, Willard S., *Teacher Turnover in the State of New York*. Teachers College Contributions to Education, No. 300. New York: Bureau of Publications, Teachers College, Columbia University, 1928.

D. Admission of non-resident pupils.

E. Percentage of men teachers (unless there is to be equal pay).

NORMAL EXPANSION

The best way to predict the number of additional teachers which will be needed annually to care for the normal growth² in population and accompanying increase in enrollment is to ascertain the average annual rate of increase in the teaching staff for the past six or eight years and consider this percentage the best indication of future trends. To arrive at this figure, the annual rate of increase for each year must be calculated by dividing the difference in the number of teachers from one year to the next by the total number of teachers on the staff for the earlier year. This must be done for each teacher classification separately, and the respective percentages of annual increase averaged³ to secure the average annual rate of increase in the size of each teaching group during the six-year or eight-year period. This calculation is illustrated by the hypothetical case of Zonesboro in Table 10.

As a check on the figures thus obtained, the average annual rate of increase in pupil enrollment in each school division should be calculated for the same period of time, by the same procedure. If the final percentages resulting from the two computations correspond rather closely, the

²If the community is decreasing in population with a consequent dwindling of the school enrollment and reduction in the teaching staff, normal contraction may be calculated in the same way, but will represent a saving instead of necessitating a larger expenditure.

³If the figure for one year is at wide variance with those for the other years and is obviously unrepresentative, it should usually be excluded from the calculation of the final average.

TABLE 10

PERCENTAGE INCREASE IN THE TEACHING STAFF OF ZONESBORO
1925-1930

YEAR	PER CENT INCREASE OVER PRECEDING YEAR		
	Elementary Teachers	Junior High School Teachers	Senior High School Teachers
1925	6.4	6.8	6.2
1926	6.0	6.7	6.5
1927	6.3	6.9	6.8
1928	6.6	7.1	6.9
1929	6.7	7.3	6.7
1930	6.5	7.2	6.8
Average Annual	6.4	7.0	6.7

figures for the average annual rate of teacher increase have gained confirmation and should be used exactly as they are for purposes of prediction. But if there is a decided discrepancy between the two sets of figures, that is, if teacher increase has been much more rapid than pupil increase or if it has shown a distinct tendency to lag behind the school enrollment, the several averages for teacher increase should be corrected before using them in prediction. The question of when the variation is sufficiently great to call for correction and the amount of correction to be made must both be left to individual judgment, since a knowledge of past local conditions is essential. No known technique can be substituted here for common sense.

The present plentiful supply of all grades of teachers enables the superintendent to adopt a conscious policy with respect to the selection of the additional teachers

necessary to care for the normal expansion. Whether he elects to add to his staff only mature, experienced, highly trained individuals or whether he decides to employ young, inexperienced teachers with the minimum qualifications, he will usually find plenty of either available. Probably the most common procedure is to bring in the majority of the additional teachers needed each year "at the bottom"—in order to save money and also to allow for promotion—with a sprinkling of seasoned veterans to fill critical posts or to introduce new courses, along the upper reaches of the salary scale. The fictitious superintendent of Zonesboro adopted this policy and found that his total annual bill for additional teachers was equivalent to the cost of the same number of teachers if all had been introduced at the third step of the schedule.

TEACHER REPLACEMENT

The problem of turnover may be handled in either of two ways, the easier of which is to consider that each teacher leaving is replaced at exactly the same point on the schedule where the former teacher would have been had she remained in the system. Replacements would thus cancel withdrawals, making no change whatever in the total salary budget. Turnover could then be completely disregarded and the cost of a new schedule figured as if the same personnel had remained in the system throughout.

Convenient as this assumption is, it does not correspond to the actual situation. Teacher replacement offers such an obvious opportunity for saving money that superintendents and school boards have been quick to take advantage of its possibilities. The general tendency

today is to replace most of those leaving, regardless of their position on the schedule, with new teachers at or near the minimum. Hence most cost estimates which ignore turnover are unnecessarily high.

The second way of dealing with turnover recognizes the tendency to make replacements at the lower end of the scale, and by predicting the rate and incidence of turnover for the future and the cost of replacements, estimates the probable saving which can be effected.

Rate of Turnover

Predicting the future rate of turnover is not so easy as estimating future expansion. It would be simple enough to find the average annual rate of turnover for the past six or eight years in the same way that the average rate of teacher increase was determined, but there is not the same justification for applying it to the future. Growth in school population is entirely unrelated to the salary schedule, but a greater or a smaller proportion of the annual teacher turnover is very closely connected with the pay scale. Hence, to assume that future turnover, with a new salary schedule in effect, will follow the same trend as it has in the past, under a different pay scale, is fallacious.

It is necessary to go a step further and dissect annual turnover into its component parts to discover what proportion of it is entirely unrelated to salary and what proportion will probably be affected by future salary adjustments. To do this, it is necessary to know the reasons for teacher withdrawal and on this basis to divide the group leaving annually into two main classifications: unavoidable turnover (unavoidable at least as far as the

superintendent and school board are concerned) and avoidable turnover. Unavoidable turnover includes those leaving because of illness, death, retirement, home conditions, and marriage; avoidable turnover comprises those leaving for a better position, to enter another line of work, because of dissatisfaction, dismissal, and for other kindred reasons. Presumably, salary would have little or no effect upon the amount of unavoidable turnover, but it would probably be an important factor in avoidable turnover.

Unavoidable turnover may therefore be regarded as tending to occur at about the same rate in the future as in the past; hence the number of those leaving for unavoidable reasons should be left untouched for purposes of prediction. But the rest of the turnover will no doubt be materially reduced in the future by the greater holding power of a higher salary schedule. (Certainly it should be so regarded, since it is safer to err in the direction of overestimating the cost than to count on savings which may never be realized.) The figures for avoidable turnover should therefore be corrected to allow for the attraction of higher salaries. Again it is necessary to rely on common sense to make the correction, since the number of teachers in each school division who leave annually for avoidable reasons is usually too small for a refined technique.⁴ The number of teachers leaving for unavoidable

⁴ Where the size of the group is large enough to warrant the use of a refined technique, the number of teachers leaving for a better position may be regarded as being reduced by a percentage equal to the percentage difference between the new maximum salary and the old maximum. If, for example, the new maximum is 30 per cent higher than the old maximum, a reduction of 30 per cent in the number of teachers leaving to accept better positions may be expected.

causes and the corrected number of those leaving for avoidable reasons should then be added together and the sum of the two converted to a percentage of the entire staff. This should be done on a yearly basis for each school division separately, and the results averaged to secure the *average annual corrected rate of teacher turnover* in each school division for the past six or eight years. By applying these averages, future turnover may be predicted with a fair degree of precision.

Incidence of Turnover

The incidence of turnover is fully as important in the estimation of future salary costs as the rate of turnover. The point on the schedule where each teacher was located at the time of leaving makes a difference in the amount of saving possible and for this reason should be given due consideration. Some causes for leaving apply mainly to teachers at the lower end of the scale, as *dismissal*, *marriage*, *to teach nearer home*, and *to study*; others, such as *home conditions* and *to accept a better position*, affect those at every point on the schedule, while still others take their toll largely from the upper end of the scale, as *retirement*, *illness*, and *death*. It is fairly safe, therefore, to assume that the various causes offset each other in such a way that the teachers leaving are distributed along the salary scale in exactly the same proportions as the total personnel—that is, if 10 per cent of the total personnel is at the sixth step of the schedule, 10 per cent of those leaving will also be at the sixth step.

The actual computation may be performed in either of two ways. The number leaving may be distributed along

the scale, as suggested previously, and subtracted at the appropriate steps of the schedule. Since turnover actually does occur all along the line, this method gives a good picture of the true situation. But since the purpose of the calculation is to determine the total saving resulting from turnover, not to picture the situation, a shorter method, which regards all teachers leaving as receiving the median salary and subtracts the entire number of withdrawals at this point,⁵ is just as satisfactory and far easier to compute. The difference between the results obtained by these two methods of calculation is so slight that it is negligible. Here, as throughout the process of estimation, considerable dependence has been placed on the principle that in the long run irregularities tend to offset each other. For illustration of the preferred technique see Table 11 on page 141.

Replacement Policy

As in the case of expansion, the superintendent and the school board will need to determine in advance their policy with respect to the placement of new teachers on the salary scale. Here again the tendency today is to start new teachers at or near the minimum.

⁵ Where the number of teachers leaving is greater than the number of teachers receiving the median salary, the excess should be divided evenly between the steps on either side of the median. If, for example, eight teachers are expected to leave but only six are receiving the median salary, the six are canceled and one is subtracted from those on the step just above the median and one from those on the step just below the median. Had there been only five at the median this process would still leave an odd teacher to be accounted for. In this case the remaining teacher should be taken from the *lower* step, so as to be conservative in the amount saved due to withdrawals. A more elaborate technique is not recommended because an approximation only is desired and the small number of cases indicates that the sampling error overshadows an error of this sort.

ADMINISTRATIVE POLICIES

When changes in administrative policy are contemplated which will affect either the size or the cost of the teaching personnel, the expense of these innovations should be carefully considered. A reduction in the size of classes, for example, would increase the number of additional teachers required to care for the normal growth in enrollment, thus invalidating any prediction based on past experience. Likewise, the introduction of new departments would involve the employment of teachers not allowed for by the percentage estimate based on past experience. Similarly, any contemplated changes in school organization as well as in the policy of admission of non-resident pupils must be carefully studied for the influence which they may have on the size of the teaching staff.

Since these are questions of local policy, they are not treated at length in this discussion. The necessary adjustments may take the form of a correction in one or more of the preceding figures or they may be budgeted separately and added in as a lump sum to the annual cost estimate.

PROCEDURE FOR COST ESTIMATION

Having discussed the general principles upon which cost estimates for a position-automatic salary schedule are based, the assumptions made, and the reasoning underlying them, the procedure for estimating the cost for the first year the schedule is in effect and for each successive year may be summarized in step form as indicated on the following page.

First Year

- Step I—Subtract the teacher turnover.
- Step II—Transfer the remaining teachers to the new schedule.
- Step III—Add the replacing teachers.
- Step IV—Add the extra teachers required for normal expansion.
- Step V—Sum up the cost.

Each Successive Year

- Step I—Subtract the teacher turnover.
- Step II—Advance all the remaining teachers one step on the schedule.
- Step III—Add the replacing teachers.
- Step IV—Add the extra teachers required for normal expansion.
- Step V—Sum up the cost.

These steps will now be expanded, one by one, and illustrated by the hypothetical case of Zonesboro. All the calculations must be performed separately for each school division, but since the procedure is the same in each case, only the elementary teachers will be considered in the illustration. To simplify the problem, no changes in administrative policy have been contemplated for Zonesboro.

*First Year***Step I—Subtract the teacher turnover**

A. Determine the number of teachers leaving in each school division by calculating the average annual corrected rate of teacher turnover for the past five or six

years and applying this percentage to the total present personnel in the system.

In Zonesboro the average annual corrected rate of teacher turnover among elementary teachers was found to be 8.0 per cent. But it so happened that since the cost estimates for the new schedule were made in May, 1931, two months after contracts had been sent out for the coming school year, the superintendent knew that five elementary teachers were leaving. Since the actual number of those expecting to leave was known, he of course used actual figures rather than an estimate (which in this case would have been 5.6 or 6 teachers).

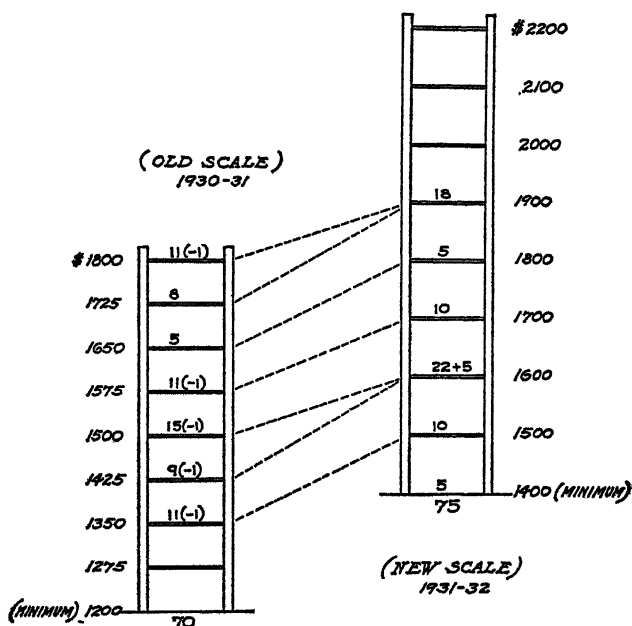
B. Calculate the incidence of turnover. The preferred way to do this is to consider that all the teachers leaving have been receiving the median salary. The other way is to distribute the number of teachers leaving along the salary schedule in the same proportions as the total personnel, using common sense in the handling of fractions.

There were seventy elementary teachers in Zonesboro in 1930-31, receiving salaries as indicated in Chart II. Since the superintendent knows which teachers are leaving, he will again use the actual figures rather than make a prediction. Those leaving, as indicated by the figures in parentheses in Chart II, are distributed along the scale in much the same way as they would have been had the second and longer method of calculation been used.

C. Subtract the teachers leaving. If incidence of turnover has been figured by the preferred method, this means subtracting the total number of those leaving from the group receiving the median salary (see footnote, p.

CHART II

TRANSITION OF ELEMENTARY TEACHERS IN ZONESBORO FROM
OLD SCALE TO NEW SCALE
SHOWING THE NUMBER OF TEACHERS ON EACH RUNG OF THE
SALARY LADDERS



Note: Figures in parentheses indicate turnover.

133). If incidence of turnover has been calculated by the longer method, this involves subtracting the proper proportion of those leaving from the appropriate salary groups.

In Zonesboro the five teachers leaving had been receiving \$1,350, \$1,425, \$1,500, \$1,575, and \$1,800, respectively. The tables of subtraction and results were as follows:

TEACHERS' SALARIES

11-1 = 10	teachers at	\$1,800
8	" "	\$1,725
5	" "	\$1,650
11-1 = 10	" "	\$1,575
15-1 = 14	" "	\$1,500
9-1 = 8	" "	\$1,425
11-1 = 10	" "	\$1,350

Step II—Transfer the remaining teachers to the new schedule

In some communities the transition from the old salary schedule to the new is made gradually by interposing an intermediary schedule between the two. Where there is a wide gap between the two schedules, this serves to reduce the cost for the coming year and does not increase teachers' salaries so abruptly. In most communities, however, the adoption of a new schedule has been preceded by a longer or a shorter period of inadequate pay for teachers, so that there is no justification for not immediately promoting teachers to the new level.

In general:

No teacher's salary should be lowered.

No teacher should receive less than the new minimum.

All increases granted should be appreciable in size.

The principle followed in Zonesboro in transferring teachers from the old to the new schedule was to advance each teacher to that step of the new schedule whose amount was next larger than she had been receiving; where this meant an advance of less than \$100, the teacher was moved up to the second step above her former salary. The transition is shown in Chart II.

Step III—Add the replacing teachers

The number of teachers necessary for replacement is, of course, equal to the number leaving. These should be entered on the salary schedule in accordance with the local administrative policy.

In Zonesboro five new teachers were necessary to replace the five leaving. Since the superintendent had previously decided to replace all teachers "at the bottom," the five new teachers were placed at the new minimum of \$1,400.

Step IV—Add the extra teachers required for normal expansion

A. Estimate the number of additional teachers required by calculating the average annual (corrected) rate of teacher increase for the past six or eight years and apply this percentage to the present personnel.

In Zonesboro the average annual rate of teacher increase in the elementary grades was found to be 6.4 per cent for the past six years. But the superintendent knew that five additional teachers would be needed for the coming year and again used the known figure in preference to a prediction. (The prediction would have been 6.4 per cent of 70, or 4.48, in which case four rather than five teachers would have been added.)

B. Place the new teachers at the appropriate step of the schedule. Additional teachers should be entered on the salary schedule in accordance with the previously determined administrative policy.

In Zonesboro the five additional elementary teachers were all placed at the third step (\$1,600) of the new schedule.

Step V—Sum up the cost

Transition of regular staff (exclusive of those leaving) to new schedule:

$$10 \times \$1,500 = \$15,000 \quad (\text{See Chart II.})$$

$$22 \times 1,600 = 35,200$$

$$10 \times 1,700 = 17,000$$

$$5 \times 1,800 = 9,000$$

$$18 \times 1,900 = 34,200$$

$$\text{Total} \quad \$110,400 \dots\dots\dots \$110,400$$

$$5 \text{ replacing teachers @ } \$1,400 \dots\dots\dots 7,000$$

$$5 \text{ additional teachers @ } \$1,600 \dots\dots\dots 8,000$$

$$\text{ESTIMATED TOTAL COST (FIRST YEAR)} \dots\dots\dots \$125,400$$

Each Successive Year

Step I—Subtract the teacher turnover

Follow exactly the procedure outlined for the first year.

In Zonesboro the average annual corrected rate of elementary teacher turnover in the past was 8.0 per cent. The number of elementary teachers leaving in 1932 was therefore estimated as 8 per cent of the total elementary personnel for 1931-32, ($.08 \times 75 = 6$) or six teachers. Incidence of turnover was figured by the preferred method, hence the six teachers were subtracted from the group receiving the median salary of \$1,600. Rate of turnover was calculated similarly for the other years as follows:

$$.08 \times 80 = 6 \text{ teachers leaving in 1933}$$

$$.08 \times 85 = 7 \quad " \quad " \quad " \quad 1934$$

$$.08 \times 90 = 7 \quad " \quad " \quad " \quad 1935$$

$$.08 \times 96 = 8 \quad " \quad " \quad " \quad 1936$$

$$.08 \times 102 = 8 \quad " \quad " \quad " \quad 1937$$

$$.08 \times 109 = 9 \text{ teachers leaving in 1938}$$

$$.08 \times 116 = 9 \text{ " " " 1939}$$

The number leaving was always subtracted from the group receiving the median salary (indicated by heavy outline in Table 11). In 1936-37 the median salary is just half-way between the fifth and sixth steps of the schedule; hence half the teachers leaving were taken from the fifth step and half from the sixth.

TABLE 11

DISTRIBUTION OF ELEMENTARY TEACHERS IN ZONESBORO ON THE NEW
SALARY SCHEDULE

1931-1940

As a basis for cost estimation

SALARY	1931- 1932	1932- 1933	1933- 1934	1934- 1935	1935- 1936	1936- 1937	1937- 1938	1938- 1939	1939- 1940
\$2,200				18	23	33	41	41	47
2,100			18	5	10	8		6	7
2,000		18	5	10	8		6	7	3
1,900	18	5	10	8	8	10	7	3	4
1,800	5	10	15	15	10	11	12	13	14
1,700	10	21	15	10	11	12	13	14	15
1,600	27	15	10	11	12	13	14	15	15
1,500	10	5	6	6	7	7	8	8	9
1,400	5	6	6	7	7	8	8	9	9
Total teaching staff	75	80	85	90	96	102	109	116	123

Note: Teachers at the median salary are indicated by heavy outline. Teachers leaving have been subtracted from those at the median. Replacing teachers have been entered at the minimum. Additional teachers have been added at the third step (\$1,600)

Step II—Advance each of the remaining teachers one step on the salary schedule

This process is indicated for Zonesboro in Table 11, which shows the distribution of teachers year by year, with turn-

over always subtracted from those at the median and with all the remaining teachers advanced one step each year.

Step III—Add the replacing teachers

In Zonesboro, replacing teachers are always entered at the minimum. In Table 11 the replacements for each year are shown at the lowest step of the schedule.

Step IV—Add the extra teachers required for normal expansion

The average annual rate of elementary teacher increase in Zonesboro was 6.4 per cent for the past six years. Applying this percentage to the total elementary personnel for 1930-31 gives the expected number of additional teachers needed the ensuing year for normal expansion. The number of extra teachers for each year was estimated thus:

6.4×75	$= 5$	additional teachers for	1932-33
6.4×80	$= 5$	"	" " 1933-34
6.4×85	$= 5$	"	" " 1934-35
6.4×90	$= 6$	"	" " 1935-36
6.4×96	$= 6$	"	" " 1936-37
6.4×102	$= 7$	"	" " 1937-38
6.4×109	$= 7$	"	" " 1938-39
6.4×116	$= 7$	"	" " 1939-40

Step V—Sum up the cost

Regular staff (exclusive of those leaving):

5	\times	\$1500	$=$	\$7,500
10	\times	1600	$=$	16,000
21	\times	1700	$=$	35,700
10	\times	1800	$=$	18,000
5	\times	1900	$=$	9,500
18	\times	2000	$=$	36,000

Total	\$122,700
-------	-----------

ESTIMATING THE COST

143

Total brought forward.....	\$122,700
6 replacing teachers @ \$1400	8,400
5 additional teachers @ \$1600	8,000
ESTIMATED TOTAL COST (1922-33).....	<u>\$139,100</u>

The total cost of the new schedule in Zonesboro was estimated similarly for each successive year.

Estimated total cost for 1933-34	\$152,700
1934-35	165,700
1935-36	179,000
1936-37	191,100
1937-38	204,800
1938-39	218,300
1939-40	232,500

Difference in Cost of Old and New Schedule

The total cost of the new schedule year by year is very important, but it is apt to be both staggering and misleading to board members and laymen alike unless some point of reference or basis for comparison is provided. For this reason the difference in cost between the new schedule and the old should be computed. The cost of continuing the old schedule is calculated in exactly the same way as has been outlined for the new schedule. The same rate of turnover, without the correction, should be used and the incidence of turnover and the step of the scale where replacing teachers are introduced should be identical. The same number of additional teachers is required each year for normal expansion, and the extra teachers are entered at the same point on the schedule. Teachers are advanced along the scale one step each year in both cases, although no transition from one scale to another is necessary in figuring the cost of the old

schedule. In fact, the only difference between the two sets of calculations is the difference in the value of the various steps of the salary schedule.

When the computation has been completed, the cost of the old schedule is subtracted from that of the new, year by year, as follows:

	1931-32	1932-33	1933-34	1934-35	Etc.
Cost of new schedule	\$125,400	139,100	152,700	165,700	
Cost of old schedule	118,575	126,525	134,775	141,750	
Difference in cost ... \$	6,825	12,575	17,925	23,950	

PREPARATION-AUTOMATIC SCHEDULE

The cost of the single salary schedule cannot be so easily nor so accurately estimated as that of the position-automatic type just discussed. While expansion and turn-over are factors common to both, the element of training which plays such an important part in the preparation type schedule and makes it so valuable professionally presents a feature which renders cost estimation extremely difficult. No one thus far has been able to forecast with much accuracy the amount of extra training which the single salary schedule will stimulate teachers to acquire, the rapidity with which it will be obtained, or the incidence of the additional training.

In the typical single salary schedule each teacher is placed on that level of the scale which corresponds to the amount of her preparation, and she advances one step along this level for each year of experience up to some stated maximum. Thus far the procedure is simple

enough; it is necessary only to evaluate the teacher's training to determine her proper level, and start her at the point which her previous experience warrants. The rest is automatic. But she also has the opportunity of ascending to one or more higher levels by acquiring stipulated amounts of additional training; this possibility raises two fundamental problems:

1. "Training expectancy."

The probable rate of professional improvement, stated as the percentage of the teaching personnel who are expected to obtain a specified amount of training each calendar year.

2. Incidence of the additional training.

The amount of preparation and the location on the salary schedule of those teachers who are expected to increase their training.

Training expectancy is determined partly by the terms of the schedule itself, partly by the attitude of superintendent, principals, and supervisors, partly by various local conditions, and partly by individual and personal considerations.

The schedule proper indicates the amount of inducement offered teachers to reach a higher level. If the salary paid teachers with four years of training is substantially greater than the salary of those with only three years of training, and if there are more or larger increments at the four-year level than at the three-year level, or both, the stimulus to secure further training will be very great and the training expectancy will be correspondingly high. If, on the other hand, the difference between one level and the next is scarcely greater than

the increase given for each year of experience, and if the size and the number of annual increments are uniform throughout the schedule, there is little incentive for a teacher to spend time, money, and energy on further preparation which nets so slight a return. Training expectancy is therefore largely governed by the size of the return on the teacher's investment.

The attitudes of the administrative and the supervisory staff are also important. These officers may spur teachers on to further study by active encouragement, they may let matters take their own course, or, in rare cases, they may actually deter teachers from securing additional training by outright discouragement or by subtle hindrances of one sort or another. Restrictions in the amount of college work which may be taken during any given year, the approving of courses selected, and requirements concerning marks necessary for credit on the salary schedule all tend to limit somewhat further preparation. Training expectancy is thus influenced by the positive, the passive, or the negative attitude of supervisors and administrators.

Special conditions must also be considered. Local teachers on the staff, assured of their positions because of tenure regulations or political backing, with their lower cost of living and their larger circle of friends frequently prefer leisure to higher pay and may be completely indifferent to opportunities for advancement. Hence, the percentage of local teachers in the system may affect training expectancy. The accessibility of the community to a university is also important, since it permits teachers to acquire extra training at less expense and with greater ease than would otherwise be possible. Localities within

commuting distance of an educational center should make allowance for Saturday, afternoon, and evening courses as well as for summer school attendance when they are estimating the rapidity with which training will be acquired.

Finally, various individual and personal factors must be considered in predicting training expectancy. The health of the teacher, her age, her present salary, her home responsibilities—including the number of dependents—and her summer occupation such as camp work, tutoring, or teaching elsewhere are all factors which must be properly weighted in estimating the response of teachers to the opportunities offered by the single salary schedule.

Since the incidence of future training makes a decided difference in the total cost of the salary schedule, some consideration must be given to the proportion of the staff who will advance from the three-year to the four-year level and from the four-year to the five-year level. The five-year group usually are already on the highest level and therefore may be ignored. Immediately following the introduction of the schedule, the incentive to secure further training will be far stronger for those who have *almost* enough training to qualify for the next higher level, whatever that may be, than for any other group. In the long run, however, incidence is probably more largely determined by the terms of the schedule itself, that is, by the difference in the size of the salary differentials between the several training groups, than by any other factor. Unless the salary schedule is distinctly lopsided⁶

⁶ In communities where the salary schedule is distinctly lopsided, tending to skew the incidence of future training, more than one figure will be necessary to express the training expectancy.

or unless the administrative and supervisory staff are deliberately encouraging further study on the part of some groups rather than others, the incidence of future training is not a serious problem in cost estimation. The minimum preparation required is so commonly two or three years of training beyond high school graduation for elementary teachers and four years for secondary teachers that professional improvement is about as likely to occur on one level as on another. In general, therefore, it is safe to assume that future training will be distributed among the various levels in the same proportions as is the teaching personnel.

Probably the wisest way to attack the knotty problem of estimating future expenditure is first to determine its extreme upper and lower limits. Like two fixed boundaries, these serve to delimit the uncertainty of future costs, since one represents the greatest possible expenditure which the new schedule could require and the other represents the lowest price it could exact. Somewhere between these two confines lies the unknown curve of probable cost.

The maximum cost, or upper limit, is the sum of all salaries year by year, with allowance for the same rate of normal expansion and turnover in the future as in the past, if every teacher except those leaving takes full advantage of the opportunity to advance by increasing her training as much and as rapidly as the schedule permits. The minimum cost, or lower limit, is the sum of all salaries year by year, with allowance for normal expansion and turnover as above, if no teacher increases her training sufficiently to move from one level to the next.

The minimum and the maximum costs are estimated in

much the same way as the cost of the position-automatic schedule,—with a few notable differences, however. The first step is to estimate the future normal expansion year by year for each school division by exactly the same procedure as was used before.⁷ Turnover should then be calculated for the entire staff in the same way as for the position-automatic schedule.⁸ Replacements, however, must be separated according to school division. Replacing teachers are divided into elementary and secondary teachers in the same proportion as the whole staff is divided; in other words, the number of new elementary teachers bears the same relation to the total number of replacing teachers as the entire elementary staff bears to the total teaching personnel.

After this has been done, it is no longer either necessary or desirable to separate the staff according to position; instead, the personnel should be reclassified according to amount of preparation and distributed on the new schedule. Turnover is deducted from those receiving the median salary for the whole staff, with the assumption that the number leaving is distributed among the several training groups in the ratio of the total number of teachers in each training group to the total personnel.⁹

The first year the new schedule is in effect the mini-

⁷ For the method used in estimating normal expansion for the position-automatic schedule, see pp. 127 ff. and p. 139, Step IV.

⁸ For the method of calculating turnover for the position-automatic schedule, see pp. 129 ff. and p. 136, Step I.

⁹ Where turnover must be deducted from a training group in which no teacher is receiving the median salary, the appropriate number of individuals should be subtracted from those nearest the median, and the effect of this discrepancy should be counterbalanced by subtracting the same number of cases on the opposite side of the median elsewhere. (See Tables 12 and 13.)

mum, the maximum, and hence the probable costs coincide, but thereafter the upper and lower limits diverge, leaving the probable cost still to be ascertained. After the transition to the new schedule, estimating the minimum cost for each year is a simple matter of distributing the turnover and subtracting it at the median, moving the remaining teachers one step each along their respective levels, adding the replacing teachers and those necessary for expansion in accordance with the administrative policy of the school system, and summing up the cost. The maximum cost is calculated in like manner, with turnover and expansion treated in exactly the same way, but with the important difference of assuming that every teacher advances from one level to the next with all possible speed. The rapidity with which teachers can increase their training is, of course, materially affected by the provisions of the schedule and by special local regulations.¹⁰

Having calculated the minimum and the maximum costs of the new schedule, it is now necessary for the superintendent to predict as accurately as possible the training expectancy of his staff as a basis for estimating the probable cost. A brief case study of each teacher in the system should be made to determine the likelihood of her securing further training and the amount which she will probably obtain. This need not be a stupendous undertaking, since much of the information will be on record at the central office and the rest can usually be supplied

¹⁰ Where sabbatical leave with pay is granted, this must be considered in estimating the rapidity with which the training requirements for salary advance can be fulfilled. Restrictions in the amount of additional work and in the number of consecutive summer sessions permitted are also important.

by principals or readily obtained from the teachers themselves. Conditioning factors such as age, health, home responsibilities, economic status, and present training should be listed for each teacher, together with a rating for ambition and persistence. This information should then be submitted to principals and supervisors and their independent judgments concerning the number of summer sessions each teacher will attend during the next four years (provided the proposed schedule is adopted) recorded as in Chart III.

Where principal and supervisor disagree and the superintendent is not sufficiently familiar with the individual to cast the deciding vote, he can do one of three things:

1. He can take the opinion of the person in whose judgment he has the greatest confidence.
2. He can decide half the cases one way and half the other.
3. He can "play safe" by considering that all doubtful cases will secure additional training.

Predictions for particular individuals should never be made for more than four years, because at the end of that period many of the present staff will have been replaced by new teachers, and a considerable number of extra teachers will have been added. For this reason, and on account of unforeseen circumstances in particular cases, it is undesirable (if not impossible) to identify individuals and to follow each career through a succession of tables for the lifetime of the schedule. A percentage of the whole staff which represents the approximate rate of professional improvement in the future is the best that can be hoped for. The figure thus arrived at for

TEACHERS' SALARIES

CHART III

CITY *Sampleville*

TRAINING EXPECTANCY

TEACHER	AGE	HEALTH	DEPENDENTS	SUMMER OCCUPATION	SALARY	YEARS OF TRAINING	PROBABLE SUMMER SESSIONS OR EQUIVALENT ATTENDED DURING NEXT FOUR YEARS			REMARKS
							Supv.	Prin.	Supt.	
<i>M. Brown</i>	49	<i>Fair</i>	1	--	\$1850	3	0	0	0	
<i>C. Clay</i>	23	<i>Good</i>	0	--	1500	4	3	2	3	
<i>R. Edgar</i>	28	<i>Excell.</i>	0	<i>Camp</i>	1700	4	0	0	0	
<i>B. Jones</i>	30	<i>Good</i>	1	--	1800	3½	1	2	2	
<i>H. Smith</i>	25	<i>Good</i>	0	--	1600	3½	0	0	0	<i>To be married</i>

(A) Total	158
(B) Total possible summer sessions*	348
$\frac{(A)}{(B)} = \frac{158}{348} = .45$	45%
Allowance for new teachers and other factors	5%
Training Expectancy	50%

* Four times the total number of teachers, exclusive of those with five years or more of training.

the first four-year period is then taken as the probable rate of improvement for the second four years. A generous allowance should be made for the new and younger teachers to be added to the staff, who are quite likely to

be somewhat more ambitious and energetic than the present personnel.

Where information can be secured for comparable communities¹¹ concerning the effect of the introduction of the single salary schedule on the training of teachers, this will serve as a check on the superintendents' figures for training expectancy. In making such comparisons with other localities, it should be remembered that the amount of extra training secured and the rapidity with which it is acquired will be greatly influenced by the amount of inducement offered by the schedule.

The process of estimating the cost of a preparation-automatic schedule may be illustrated by the hypothetical case of Sampleville. The new schedule proposed for this city was as follows:

TRAINING	SALARY		
	Minimum	Maximum	Increments*
3 years	\$1400	\$2000	6 x \$100
4 years	1600	2800	6 x 200
5 years	1700	3500	6 x 300

* To simplify the calculations, only six increments are provided for in this schedule.

Appended to the new schedule were the following regulations stipulating the conditions under which additional training would be credited for salary purposes:

¹¹ For a discussion of the effect of the single salary schedule on the training of teachers in sixty-seven communities, see Morris, Lyle L., *The Single Salary Schedule*. Teachers College Contributions to Education, No. 413. New York: Bureau of Publications, Teachers College, Columbia University, 1930.

- 1 No increase in salary will be granted for fractional parts of a year of training.
- 2 One year of training shall be equivalent to thirty-two points of college work. Each six-weeks summer session of eight points shall constitute one-quarter of a year of training.
3. No teacher may take more than ten points of college work during any calendar year while employed in full-time capacity
4. To be credited toward higher salary, each course taken must be
 - a. Approved in advance by the superintendent of schools.
 - b Successfully completed (passed).
5. Additional training will be evaluated once a year and credited as of February first

It was decided to replace all teachers at the third step¹² of the schedule, elementary teachers being brought in on the three-year training level and secondary teachers (both junior and senior high school) on the four-year training level. Additional elementary and secondary teachers needed for normal expansion were to be brought in at the minimum for the three-year and four-year training levels, respectively. No change in administrative policy was contemplated in Sampleville which would affect either the size or the cost of the teaching personnel.

Since cost estimates for the new schedule were prepared in December, neither the actual turnover nor expansion was known for the coming year. Hence predictions of the rate of turnover and expansion were necessary from the start. Normal expansion was predicted for each of the eight years for which a cost estimate was to be

¹² Second step above the minimum

made by exactly the same procedure as was used for the position-automatic schedule. There were one hundred teachers in Sampleville, fifty elementary and fifty secondary. The average annual rate of teacher increase for the previous seven years was found to be 6 per cent both for the elementary school and for the junior-senior high school. (Because teacher increase corresponded rather closely to pupil increase, no correction was necessary.) By applying this percentage to the elementary and the secondary totals, respectively, the number of additional grade teachers and high school teachers needed each year was calculated.

Turnover was not calculated by school divisions as for the position-automatic schedule, however, but for the staff as a whole. The average annual corrected rate of teacher turnover for Sampleville was 10 per cent. By applying this percentage to the total teaching personnel, the number of withdrawals was computed for each of the ensuing eight years. Replacements, which of course were equal in number to withdrawals, were divided into elementary and secondary teachers in the same proportion as was the total personnel. Thus in Sampleville half the replacing teachers were entered at the minimum for those with three years of training and half at the minimum for those with four years of preparation.

Since a position-automatic schedule had been in effect in Sampleville, the next step was an evaluation of the training of the present personnel. A problem was at once presented by the fact that a number of the older teachers in the system had had less than the minimum of three years of training called for by the new schedule. This was resolved by crediting all those with less than mini-

imum preparation as having had three years of training, both for purposes of location on the new scale and as a basis for additional training in the future. Table 12 shows the distribution of the present personnel in Sampleville on the old scale, according to training and present salary.

TABLE 12

DISTRIBUTION OF SAMPLEVILLE TEACHERS ON THE OLD SALARY SCHEDULE
ACCORDING TO AMOUNT OF PREPARATION

SALARY	YEARS OF TRAINING BEYOND HIGH SCHOOL GRADUATION									TOTAL
	3	3½	3½	3¾	4	4¼	4½	4¾	5+	
\$2,450					8			2		10
2,300 .. .					6	2				8
2,100					4	3			1 ⁻¹	8
1,850	13 ⁻³				6 ⁻³	1 ⁻¹	3	4 ⁻¹		27
1,800			1 ⁻¹						2	3
1,700	6	2	2	1	3	2				16
1,600 .. .	8	2	3							13
1,550										
1,500	5				1	4			3	13
1,400	2									2
Total	34	4	6	1	28	12	3	6	6	100
Distribution of turnover	3		1		3	1		1	1	10

Before the present personnel could be transferred from the old schedule to the new, it was necessary to deduct those leaving. The total number of withdrawals—which had already been estimated as being 10 (10 per cent $\times 100 = 10$)—was first distributed among the several training groups in the ratio of the total number of teachers in each training group to the total personnel.

$$? : 10 :: 34 : 100$$

$$? : 10 :: 4 : 100$$

$$? : 10 :: 6 : 100 \text{ Etc.}$$

This distribution is shown by the row of small figures at the bottom of Table 12. The proper number of withdrawals was then subtracted from the teachers who were receiving the median salary for the entire staff, as indicated by the small figures in Table 12. It will be noted from this table that in two instances it was necessary to deduct turnover from a training group in which no teacher was receiving the median salary, but that the subtractions were made in such a way as to offset each other.

In transferring the present group of teachers from the old schedule to the new exactly the same principles were followed as for Zonesboro, namely:

1. No teacher's salary was lowered.
2. No teacher received less than the new minimum.
3. Each teacher was advanced to that step of the new schedule whose amount was next higher than she was then receiving; where this would mean an increase of less than \$100 the teacher was advanced to the second step above her present salary.

TEACHERS' SALARIES

TABLE 13

DISTRIBUTION OF SAMPLEVILLE TEACHERS ON THE NEW SALARY SCHEDULE
ACCORDING TO AMOUNT OF PREPARATION
FIRST YEAR

SALARY	YEARS OF TRAINING BEYOND HIGH SCHOOL GRADUATION									TOTAL
	3	3½	3¾	3¾	4	4¼	4½	4¾	5+	
\$3,500										
3,200										
2,900										
2,800										
2,600					8			2		10
2,400					6	2				8
2,300										
2,200					4	3				7
2,000	10				8		3	3 ⁻¹	2	26
1,900										
1,800	6 ⁻⁴	2	2	1	3 ⁻³	2 ⁻¹				16
1,700	8	2	3 ⁻¹						3 ⁻¹	16
1,600	10				4	4				18
1,500	2									2
1,400	3									3
Total	39	4	5	1	33	11	3	5	5	106
Distribution of turnover	4		1		8	1		1	1	11

Table 13 shows the distribution of the present teaching staff of Sampleville for the first year of the new schedule, classified according to training as evaluated, minus estimated withdrawals and plus replacing and additional teachers.

The minimum and the maximum costs of the schedule for the next seven years were then calculated. The computation of the minimum cost was relatively simple, since no allowance for increased training was made. For all practical purposes, therefore, all teachers with less than four years of training constituted one group; those with four years or four and a fraction, another group; and those with five or more years of preparation, a third group. Each group was advanced one step on the scale with every year of experience, but the steps had different values for the three levels of training. Turnover was subtracted from those teachers at the median salary and replaced in accordance with the policy of the school system. Extra elementary teachers were brought in at the minimum for the three-year level and extra secondary teachers at the minimum for the four-year level.

The maximum cost, however, involves the problem of extra training. Since no provision for leave of absence, either with or without pay, was made in Sampleville, four summer sessions were required to secure a full year of training. The upper limit of cost for Sampleville would therefore be reached if every teacher (except teachers who already had five years of training¹⁸ and those leaving

¹⁸ It makes no difference for purposes of cost estimation whether teachers with five years of preparation secure additional training or not. This group is advanced annually for experience, but their training may be ignored.

the system) attended summer school every year. The maximum cost was figured on this basis, with turnover and expansion treated in exactly the same manner as in calculating the minimum cost.

When the upper and the lower limits of the cost of the new schedule had been determined, the superintendent was ready to predict the probable cost.¹⁴ After making a brief case study of each teacher in the system (except those with five years of training), after considering the experience of comparable communities, and after making due allowance for various local conditions¹⁵ the superintendent of Sampleville predicted that half his teachers would attend summer school every year; this indicated a training expectancy of one quarter of a year of additional preparation for fifty per cent of the staff annually.¹⁶

¹⁴ Probable cost can, of course, be estimated entirely independently of the minimum and maximum cost, greatly reducing the labor of computation. But since the final estimate is at best only an approximation, the establishment of fixed boundaries for the uncertain course of future expenditure is so reassuring that it is strongly recommended.

¹⁵ For the type of case study made and method of calculating training expectancy, see Chart III.

¹⁶ If the schedule had been so designed that the inducement to advance from the three-year to the four-year level was substantially greater than the incentive to move from the four-year to the five-year level (or *vice versa*), more than one figure for training expectancy would have been used. In communities unlike Sampleville, where this is the case, an estimate of the degree of disparity among the several training groups should be made. Where the number of cases is large enough to iron out irregularities due to individual considerations, a summary of the case studies according to years of training will reveal future trends fairly reliably. In small systems, however, the sampling error inherent in this method will be so large that the differentials in the schedule itself constitute a much stabler indication of training expectancy.

ESTIMATING THE COST

161

TABLE 14

PREDICTED DISTRIBUTION OF SAMPLEVILLE TEACHERS ON THE NEW SALARY
SCHEDULE AS A BASIS FOR CALCULATING THE PROBABLE COST
FOR THE SECOND YEAR

SALARY	YEARS OF TRAINING BEYOND HIGH SCHOOL GRADUATION									TOTAL
	3	3½	3¾	4	4½	4¾	5	5+		
\$3,500										
3,200										
2,900								I	I	
2,800				4	4		I			9
2,600				3	4	I				8
2,400				2	3	2				7
2,300								3	3	
2,200				4	4	I	3			12
2,000	5	5		6	I			2	19	
1,900	I	2	2	I						6
1,800	4	5	2	I	2	4	2			20
1,700	5	5								10
1,600	7	I		3						11
1,500	I	2								3
1,400	3									3
Total ...	26	20	4	2	24	20	6	4	6	112

On this basis he calculated the probable cost of the new salary schedule year by year, following the same general procedure used for estimating the maximum cost. Table 14 shows the distribution of Sampleville teachers the second year of the new schedule for purposes of estimating the probable cost.

The minimum, the maximum, and the probable costs of the proposed schedule for Sampleville were computed for an eight-year period in the manner described, with the results shown in Table 15.

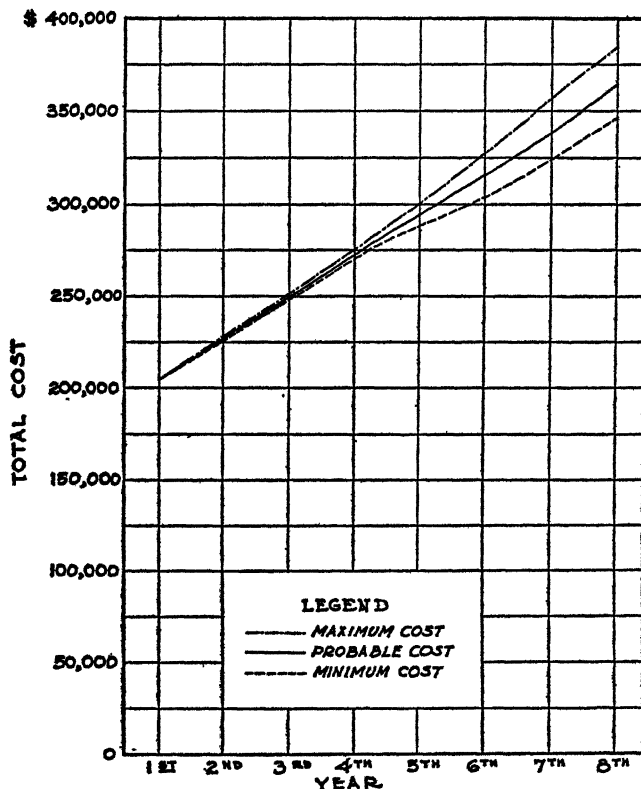
TABLE 15
ESTIMATED TOTAL ANNUAL COST OF THE NEW SALARY SCHEDULE FOR
SAMPLEVILLE

YEAR	TOTAL TEACHING STAFF	TOTAL COST		
		Minimum	Probable	Maximum
1st	106	\$204,600	\$204,600	\$204,600
2nd	112	227,400	227,700	228,400
3rd	119	248,900	249,700	250,500
4th	126	269,400	271,700	273,300
5th	133	287,400	292,500	299,100
6th	141	306,200	315,100	328,800
7th	149	323,100	338,700	357,500
8th	158	344,700	363,100	382,500
Average Annual In- crease	7.4 6.0%	\$ 20,014 7.7%	\$ 22,786 8.5%	\$ 25,414 9.3%

The estimated minimum, maximum, and probable costs of the new schedule for Sampleville given in the above table are shown graphically in Chart IV on the opposite page.

CHART IV

ESTIMATED MINIMUM, MAXIMUM, AND PROBABLE ANNUAL COST
OF THE PROPOSED SALARY SCHEDULE FOR SAMPLEVILLE
FOR AN EIGHT-YEAR PERIOD



OTHER TYPES OF SALARY SCHEDULES

The position-automatic and the preparation-automatic are by far the most prevalent types of salary schedules in use in the United States. There are a few other types of salary scales, however—mostly hybrids that combine the elements of either the position or the preparation type with merit features. As the number of variables affecting salary increases, the complexity of the problem becomes very much greater, the calculation correspondingly more laborious, and the resulting estimate less reliable. No attempt is made here to outline a procedure for estimating the cost of such schedules.

SALARIES OF SUPERVISORS AND PRINCIPALS

The foregoing discussion has been concerned solely with classroom teachers and with those persons commonly included in the salary schedule proper. In order to arrive at the total annual salary budget for instruction, it is necessary to add to the estimates for teachers' salaries the amounts required for principals, directors, and others responsible for the supervisory work of the schools. Since in most communities this group is relatively small and since special considerations frequently enter into the determination of their salaries, no attempt has been made to evolve a general formula for predicting the future cost of the salaries for this group. Case studies, together with a careful consideration of the school policy, furnish a fairly reliable basis for estimating future costs for these individuals.

CHAPTER VIII

THE ABILITY OF THE COMMUNITY TO SUPPORT TEACHERS' SALARIES

AFTER a salary schedule designed to attract and retain capable, highly qualified teachers has been constructed and the cost of this schedule has been estimated as closely as possible, the important question arises: Can the community support the proposed schedule? To some, this order of procedure may appear to be putting the cart before the horse; it would seem to be more business-like first to discover how much the community can afford to spend on teachers' salaries and then to establish a schedule whose cost will not exceed this amount. This plan would indeed be right and proper if the community's ability to pay were a fixed quantity; but such is not the case. On the contrary, the community's ability to support schools or anything else is so very flexible that nobody can say exactly how great it is. In the absence of absolute measures of ability, economists and educators alike have been forced to rely largely on indications of the relative financial status of the community.

Comparisons with other communities afford obvious measures of the relative ability of a community to spend a certain amount of money for teachers' salaries. In making such comparisons special care should be exer-

cised to ensure their validity. Comparisons of the available wealth in various communities are often unfair because they are based on insufficient data. Figures for per capita wealth, for example, may be very misleading because of variations in educational burden (number of children to be educated) which have not been taken into account. The selection of the particular communities with which the comparisons are to be made is in itself an important matter. Such factors as population, geographical location, industrial development, and natural resources have a direct bearing upon the community's ability to support education. Furthermore, the percentage of the population of school age, the percentage of all school children attending the public schools, and the proportion of public school children in high school¹ must also be considered. Density of school population is another factor, but its effect on school costs has been only partially determined. Wealth per child in average daily attendance is undoubtedly the best single measure of ability. Here again, care must be taken that the figures are comparable, that is, that they are all for true wealth or all for total assessed valuation, and in the latter case that assessments represent the same percentage of true valuation. Tables 16 and 17 illustrate the use of comparative figures for determining the relative ability of Yonkers, New York, to support a higher salary schedule.

Comparative information on the wealth and school tax-rate in other localities may be very reassuring in regard to the community's relative financial status as far as the immediate present is concerned and still give little indica-

¹ The per capita cost of educating high school pupils is usually about twice that of educating elementary children.

TABLE 16

TOTAL ASSESSED VALUATION AND TAX RATES FOR SCHOOL PURPOSES IN
YONKERS AND NINE COMPARABLE COMMUNITIES

From Teachers' Salaries in Yonkers, 1929, by W. S. Elsbree

COMMUNITY	TOTAL ASSESSED VALUATION	TAX RATE FOR SCHOOL PURPOSE	RANK IN TAX RATE	RATIO OF AS- SESSED TO TRUE VALUA- TION	TAX RATE BASED ON TRUE VALUA- TION	RANK IN TAX RATE BASED ON TRUE VALUA- TION
Tarrytown ...	\$ 12,862,692	\$14 808	1	72½	\$10 7358	1
Pelham	37,413,315	12 49	2	32	3 9968	10
Mt. Vernon	141,954,481	11 08	3	83	9 1964	2
Scarsdale	32,626,695	10 72	4	81	8 6832	4
YONKERS	301,891,030	10 33	5	85	8 7805	3
Mamaroneck	49,007,713	10 12	6	60	6 0720	8
Bronxville	29,561,951	9 58	7	73	6 9934	5
Ossining	17,617,068	8 20	8	70	5 740	9
White Plains ...	108,360,868	8 087	9	83	6 7122	6
New Rochelle	167,930,208	7 42	10	83	6.1586	7

tion of its future prospects. These figures should therefore be supplemented by a table showing predicted local wealth for a considerable period, together with the tax-rates necessary to meet the annual estimated cost of the proposed schedule. Estimates of future wealth may be made on the basis of past trends and corrected to care for any special factors² which seem likely to influence the future rate of increase or decrease in property values.

It should be remembered that teachers' salaries are only a part of the annual school cost. Consideration should

² Allowance should be made for any anticipated unusual increases which would tend to alter the general trend. It is also necessary to consider contemplated industrial developments and probable growth in population. Where a school building survey has recently been made, predictions for growth, expansion, and development will already be available and these should be thoroughly studied.

TABLE 17

ABILITY OF YONKERS AND TEN COMPARABLE COMMUNITIES TO SUPPORT
PUBLIC EDUCATION, AS INDICATED BY FULL VALUATION OF
PROPERTY PER PUPIL IN A.D.A.

From Teachers' Salaries in Yonkers, 1929, by W. S. Elsbree.

COMMUNITY	TOTAL ASSESSED VALUATION	RATIO OF AS- SESSED TO TRUE VALU- ATION	FULL VALUATION	NUM- BER OF PUPILS IN A.D.A.	FULL VALU- ATION PER CHILD IN A.D.A.	RANK IN FULL VALU- ATION PER CHILD IN A.D.A.
Pelham	\$ 37,413,315	32	\$ 116,916,609*	1,488	\$78,573	1
Bronxville . . .	29,561,951	73	40,495,823*	838	48,324	2
Mamaroneck . .	49,007,713	60	81,679,521*	2,490	32,803	3
Scarsdale	32,626,695	81	40,279,870*	1,316	30,608	4
New Rochelle . .	167,930,208	83	202,362,491	7,373	27,446	5
White Plains ..	108,360,868	83	130,555,262	4,935	26,454	6
New York City .	16,762,104,769	85-96†	19,011,914,832	935,866	20,315	7
Tarrytown	12,862,692	72½	17,741,644*	901	19,691	8
Mt. Vernon ...	141,954,481	83	170,998,772	8,967	19,070	9
YONKERS	301,891,030	85	355,129,123	19,550	18,165	10
Ossining .. .	17,617,068	70	25,167,240*	2,005	12,552	11

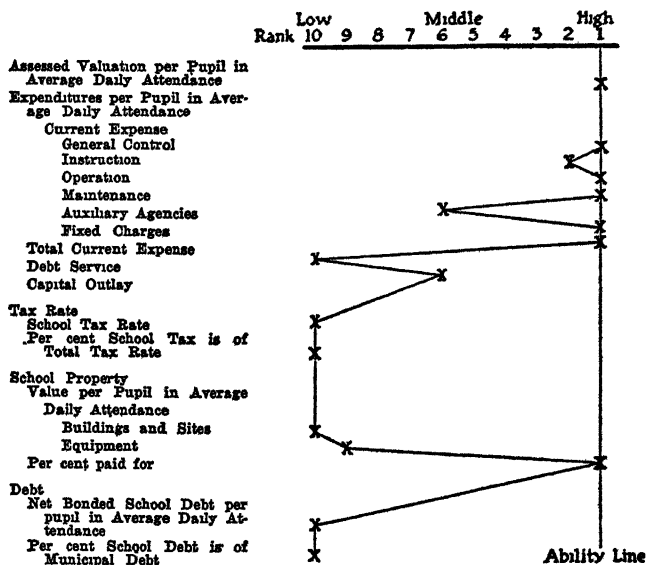
* Computed. Figures not exact to final dollar. † Rates vary for different boroughs.

A.D.A.—Average daily attendance.

therefore be given to other items in the educational budget and some estimate should be obtained of the probable future trends in these other types of expenditure. This is true especially of the school building program, since new buildings require such a large capital outlay that recourse is frequently necessary to the voting public for authorization to issue bonds, and often an increased tax-rate to finance them is necessary. The sums of money already tied up in school bonds should not be overlooked, since they represent obligations for future payments. Thus the amount which must be expended for debt serv-

CHART V

AN EXCELLENT GRAPHICAL ILLUSTRATION SHOWING
 USE OF SEVERAL MEASURES
 THE DEGREE TO WHICH HOLYOKE APPROACHES ITS ABILITY
 TO SUPPORT SCHOOLS
 RANK AMONG MASSACHUSETTS CITIES



Note the spread: If Holyoke were living up to its ability on school support, the items would all be nearly vertical in a line through rank 1, where Holyoke's wealth falls. The low items, debt service, capital outlay, school tax, value of buildings, and bonded indebtedness, show the little effort Holyoke is making to support an adequate school program.

From Report of the Survey of the Schools of Holyoke, Mass., 1930.

ice and the percentage of school property already paid for constitute additional measures of financial ability. Chart V illustrates graphically the use of several measures for determining the relative ability of Holyoke, Massachusetts, to support public education.

Since the schools are only one of many publicly supported institutions and services, proposed expenditures for other municipal purposes should be considered as well.

The comparative method breaks down rather badly when the community finds itself at the bottom of the list in wealth and at the top of the list in effort (school tax-rate). The communities with which it is compared may all be abundantly able to double or even treble their school expenditures if occasion should arise, or they may all be staggering under a heavy cost burden,—as far as relative figures show. Must the poorest community patiently resign itself to the fate of a tailender in the forward march of educational opportunity? Or may it take courage and by dint of extra effort provide good schooling for its children in spite of its financial handicap?

Relative figures are thus only a partial answer to the problem of ability. The real question is: When is a community too heavily taxed for its own good? If it were possible to answer this question with anything like finality and definiteness, all relative facts and figures would be superfluous; but our very dependence on relative figures is tantamount to admitting that no one knows.

There are, of course, two determining principles which define the limits of taxation: taxes must not cut into principal, and taxation for a purpose which can be accomplished more economically by private enterprise cannot be justified. Happily, most American communities are

sufficiently wealthy so that the annual tax bill is far from encroaching on principal. Moreover, the United States is whole-heartedly committed to education at public expense, and most authorities would agree that the administration of the schools has on the whole been fully as economical as it would have been in private hands. Hence these two principles are scarcely applicable at present to taxation for education, and offer little assistance in solving the problem of measuring absolute ability.

In the last analysis, this matter of ability really becomes a question of willingness.

When we transform the problem of ability into a question of willingness, we are changing the physical into the psychological. It is no longer a matter of capacity, but one of relative values. Is the taxpayer willing to forego a few pleasures, some little comforts, or a fraction of his savings in order to provide better schooling for his and his neighbor's children? It is not how much the people can afford to spend on education, but how much they think they can afford.

Resolving the issue into what the public most wants for its money makes the problem at once more subtle and more easily controlled. Willingness is determined in no small degree by the skill of the school authorities in presenting the case for education to the public. With business concerns constantly flaunting their advertising banners before the people, with all manner of charitable societies and benevolent organizations putting on "drives" to secure popular support, and with a score of private and public needs clamoring for every dollar, the school is virtually compelled to carry on a publicity program in self-defense, if it is to obtain adequate financial support.

The burden of proof rests on the superintendent to interpret the schools to the public and to convince the citizens of the desirability of high salaries. Probably the most valuable contribution which the comparative method can offer lies in the fact that it is a potent means of increasing the willingness of a community to tax itself for education.

Finally, the amount of state aid which a community receives is an important factor in its ability to support a given salary schedule. Recent legislation in several states has provided for the distribution of state funds to "equalize educational opportunity," that is, to provide equal educational facilities for every child up to a satisfactory minimum with equal local effort (school tax-rate). By paying the local district a definite sum per child enrolled or per pupil in average daily attendance, minus the amount that could be raised in that district by a given tax-rate, these states are doing much to wipe out the effects of inequalities of wealth and are thus enabling poorer communities to improve their educational offerings. Where state aid takes the form of a substantial contribution to the salary of each teacher who meets certain training requirements, as in New York and Pennsylvania, these funds encourage the employment of well-qualified teachers and enable even the poorer communities to pay attractive salaries.

CHAPTER IX

SALARY CAMPAIGNS

DURING recent years publicity has become a fetish with every kind of organization and enterprise. From the splashy advertising of big business to the more dignified propaganda of conservative undertakings, organizations big and little have one and all striven to "sell the idea to the public," "create new wants," or "keep the public informed." The public schools, however, have been somewhat inclined to hold aloof from this stampede for the limelight, thinking organized publicity in their own case degrading, useless, or unnecessary. But educators are gradually awakening to the fact that any institution which depends on the public for support must systematically explain its policies, justify its course of action, and demonstrate its value to the people who pay its bills.

This is the more true of education because of the rapid strides it has made in the last generation. Improved techniques, new points of view, and altered conceptions of the function of the school have swept it far beyond the reach and comprehension of the average citizen. The parents of today's school children are bewildered by the variety of subject matter, confused by the strange methods and the new ideas of the modern school. "There are

literally millions of people in America today who do not understand why their children in the first grade are not taught the A, B, C's, just as they were taught them, who think that music, art, vocational training, and the other new features of the enriched curriculum are fads and fancies, who firmly believe that one reader a year is enough for any child in the primary grades and that the addition of other books is the result of good salesmanship on the part of book company representatives, who are positive that the vast increase in expenditures for public schools is the result of inefficient management on the part of school officials and teachers, who still believe that the Blue Back Speller is the best textbook ever published, who have no conception of the additional duties and responsibilities which society has loaded on the schools, and who are not yet convinced that the youth who went to the little red schoolhouse was not better prepared for life and had more useful information than has the modern youth who is graduated from one of the institutional high schools. Such people think that an activity program is play. They understand nothing of the spirit of freedom in the schools today. They are positive that the child in the modern school gets a smattering of many things but learns nothing thoroughly."¹

Only when the people understand where the school is going and what it is trying to do, can they be expected to sympathize with its efforts and rally to its support. To this end there must be a continuous, well-rounded publicity program on the part of the school—not just occa-

¹From the handbook on public information of the North Carolina Education Association.

sional drives for new school buildings and special campaigns for higher salaries. Intelligent citizens soon grow suspicious of the school authorities if the school is never heard of except when a bond issue is in the offing. More emphasis on what's right with the school, more care to let the public know what's going on in the school week by week, more publicity without ulterior motive will mean less need for propaganda. Every teacher can help. Every supervisor, principal, and administrator can supply interesting facts that will uproot traditional notions and overturn prejudice. Then when the need for more funds arises, as arise it most certainly will, the ground has been prepared and the seed sown for a goodly harvest.

Even with a thoroughgoing publicity program, it will still be necessary from time to time to make special appeals to the board of education, the city council, or the general public for additional revenue for one purpose or another. Especially is this true for teachers' salaries in light of the depreciation of the dollar, higher standards of training, and the broadening function of the school. All the general publicity which has preceded will make a salary campaign immeasurably easier and more certain of success, but much pertinent data must nevertheless be assembled, prepared, and disseminated. It is absolutely essential that public understanding and sympathy accompany each special levy if further advances are to be made and the ground which has been gained is to be held.

This chapter is designed to assist the school administrator who is confronted with the necessity of conducting a salary campaign, by outlining a general procedure and suggesting types and sources of data and methods of presentation.

ORGANIZATION

The organization and launching of a campaign for higher salaries varies widely according to the size of the community, its general attitude toward the schools, and the special local conditions. Where the board of education is both progressive and fiscally independent, where the community is in sympathy with the work of the school, and where it is reasonably certain that there will be no opposition to higher salaries on the part of either, a quiet investigation by the superintendent, with or without expert advice and assistance, is usually the best procedure. Where the school board is divided, where it approves higher salaries but funds are lacking, where it is fiscally dependent and the city council or other municipal body is indifferent or opposed to a larger appropriation for teachers, and in most instances in large cities, the wisest plan is to organize a committee of disinterested citizens to investigate the proposed schedule and sponsor a campaign for its support.

Judiciously selected, the citizens' committee is a powerful lever for influencing public opinion. The fact that its members have nothing to gain personally, that on the contrary, as taxpayers they will actually lose money if the new schedule is put into effect, carries great weight. The approval of prominent people not only is impressive because of their general prestige, but also causes most of the lesser members of their respective followings to swing into line. In large cities the school system is so complex and so remote from the mass of the people that this type of committee is necessary to act as an intermediary between the school authorities and the populace; the public

has too frequently become so accustomed to graft, corruption, and inefficiency in municipal management that some such agency for guaranteeing the good faith and the genuine need of the school is almost essential. Boards of education welcome the creation of a citizens' committee as a substantial aid in interpreting public sentiment and as a sharer in the responsibility for their subsequent action. Such committees of citizens were formed in New York City, Chicago, Pittsburgh, and Yonkers in connection with the recent salary campaign in each of these cities.

The composition of the citizens' committee is such an extremely important part of the campaign that the utmost care should be exercised in its selection. Every effort should be made to secure the most influential and representative group of individuals possible. A fairly large committee is therefore desirable. It is also important that this group represent a non-partisan point of view, lest the salary campaign deteriorate into a political wrangle. Furthermore, no one directly or indirectly connected with the school system should be included, for the chief strength of the committee lies in the fact that it is an outside organization. The committee should comprise representatives of all the more important groups in the community, such as the following:

- President of the Women's Club
- Head of the Chamber of Commerce
- A labor leader
- A prominent banker
- A well-known physician
- An eminent lawyer
- A popular and respected minister

- An influential Catholic
- A member of each fraternal lodge
- A member of each service club
- A member of each patriotic society

The practice of calling in a disinterested expert to survey the local salary situation, formulate a salary schedule, and make a detailed report to the citizens' committee or to the board of education is finding increased favor with school administrators and teachers. This plan recommends itself to townspeople, teaching staff, and school authorities as being at once unbiased and scientific. In small communities the superintendent may be able to make the investigation himself, but as a rule the multiplicity of demands upon his time and energy and the special training required preclude the possibility of his doing a really thorough piece of research. Wherever possible, therefore, it is advisable to secure the services of a specialist in this field. This plan was followed in New York City, San Francisco, Pittsburgh, Yonkers, Minneapolis, and Los Angeles. A detailed study of teachers' salaries is also included as a part of the general school survey made by the Division of Field Studies, Institute of Educational Research, of Teachers College, Columbia University. Recent examples of these will be found in the survey reports for Holyoke, Mass., Newburgh, N. Y., Maple Heights, Ohio, Closter, N. J., the Panama Canal Zone,² and for other places.

The directorship of the campaign will depend upon local conditions. Where an expert is employed, he will of course take the lead, attend to the collection of data,

² Most of these reports may be obtained from the Bureau of Publications, Teachers College, Columbia University, New York City.

its preparation, interpretation, and presentation, as well as formulate the new salary schedule. Working in conjunction with the superintendent, he will outline a publicity program and supervise all releases to the press and other publicity material. The superintendent's function is to make available sources of information, advise the expert about local conditions, and handle the problem of "contacts." This last function is a matter of paramount importance and one which can best be attended to by the superintendent himself, since he knows the key people of the community. Enlisting the approval, support, and cooperation of influential citizens requires much time and energy and often a great deal of tact and finesse, but their endorsement of the proposed schedule is such an important factor in the success of the campaign that no pains should be spared to obtain it. If this is true even with an enthusiastic citizens' committee, it is *a priori* a task of the first magnitude where a citizens' committee has not been organized.

In a few cases where the superintendent is indifferent or even hostile to the teachers' demand for higher salaries, his function devolves upon an officer of the teachers' organization or upon some member of the citizens' committee. Indifference on the part of the superintendent makes it almost imperative to call in a salary specialist if the campaign is to be conducted at all; while if the superintendent evinces actual hostility to the proposal, the matter should usually be deferred until the prospect is more favorable.

One of the most important preliminary steps is to secure the confidence and cooperation of the teachers themselves. Teachers are quite likely to be fearful of a survey

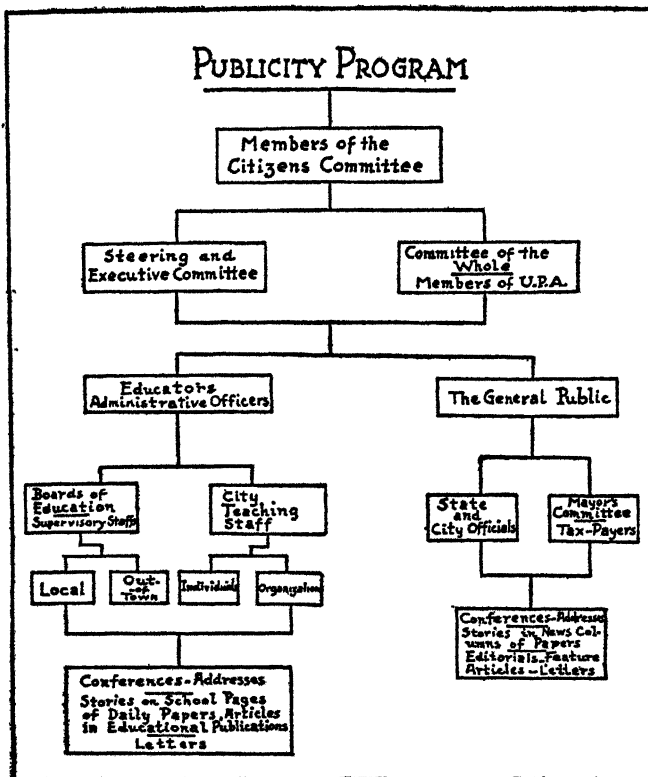
even though it is manifestly for their own benefit. They may be suspicious of the personnel of the survey, regard it as a political move, or as just another fruitless investigation. Petty jealousies within the ranks are likely to crop out and divide the teaching staff into warring factions. The director must allay these fears and suspicions at the outset and keep the teachers in constant touch with the campaign. Too much emphasis can scarcely be placed on the importance of approval on the part of the teachers of the forthcoming schedule, for the average citizen and taxpayer will scarcely be inclined to favor a scheme which the beneficiaries themselves do not support.

Since the citizens' committee, if there is one, is primarily an advisory body, an executive committee should be organized to assist in carrying on the active work of the campaign. This group should be small, and its members should be selected with an eye to special abilities and executive qualities.

One of the problems which the executive committee faces at the outset is the financing of the campaign itself. Although this does not call for a large outlay there will be some expense incident to collecting certain data, printing and distributing publicity material, etc. By far the most expensive item is the cost of hiring an expert. The source of his salary is of some concern because of the popular idea that "he who pays the piper calls the tune." This expense may properly be borne by the board of education; where the board does not provide the necessary funds, the cost of the specialist may be defrayed through private donations, contributions from the local service clubs and other organizations, by the Parent-Teacher

Association, or even by the local teachers' organization. In the latter case if the integrity of the expert employed

CHART VI



From Teachers' Salaries in New York City. Distributed by Bureau of Publication, Teachers College, Columbia University, 1927,

is above reproach and if he keeps in close touch with the citizens' committee throughout his investigation there ought to be no occasion for public criticism.

Another important duty of the executive committee is the carrying on of a publicity program. It is their task to arrange for meetings and conferences, obtain space in the local press, secure good speakers, and obtain entrée to various clubs and organizations for them, distribute circulars, and render similar services. Chart VI shows the organization for publicity which was effectively used in the New York City campaign. This should prove suggestive for large cities; smaller cities would need a far less elaborate organization.

In a few instances, notably Springfield, Mass., and Cincinnati, Ohio, where the board of education has undertaken to revise the salary schedule without the assistance of an expert, a comprehensive study has been made by committees of teachers under the direction of a member of the administrative staff of the school system. The participation of teachers in such a study has the advantage of enlisting the active cooperation of the staff, giving them an appreciation of the problems involved, and tending to make them better satisfied with the final outcome. An appropriate type of organization consists of an advisory committee composed of representative and influential teachers and staff members, an executive committee, and numerous sub-committees to carry on various phases of the work.

TYPES AND SOURCES OF CAMPAIGN MATERIALS.

Whether the salary investigation is to be made by the local staff or by an outside expert, the kind of data necessary for publicity purposes will be identical in each case. Conveniently enough, much of the information which must be secured for the formulation of the schedule itself

can also be utilized for the creation of favorable public opinion. Under no circumstances should distorted facts, fallacious figures, or misleading interpretations be used. Pictorial material is almost always more vivid than tabular data or descriptions in words and should therefore be used wherever appropriate. When preparing charts and graphs all the requirements of accuracy as well as vividness should be observed.³ Suggestions as to the type of material which can be used for campaign arguments, sources from which it can be obtained, and forms for its presentation follow.

I. Teachers' Salaries

The present salaries of teachers should, of course, be secured and the salaries paid for a number of years previously as well, notably for the period just preceding the War. These data may be used to show the absolute and the proportionate increase in salaries since 1913 or some other basic year. Chart VII shows how this type of material may be portrayed graphically.

Annual contract salaries, both past and present, may be obtained from the local payroll, the minutes of the board of education, or occasionally from the annual report of the board of education.

II. Cost of Living Figures

These data are of paramount importance and constitute much the strongest argument for raising inadequate salaries. If reliable pre-war figures are also obtainable, com-

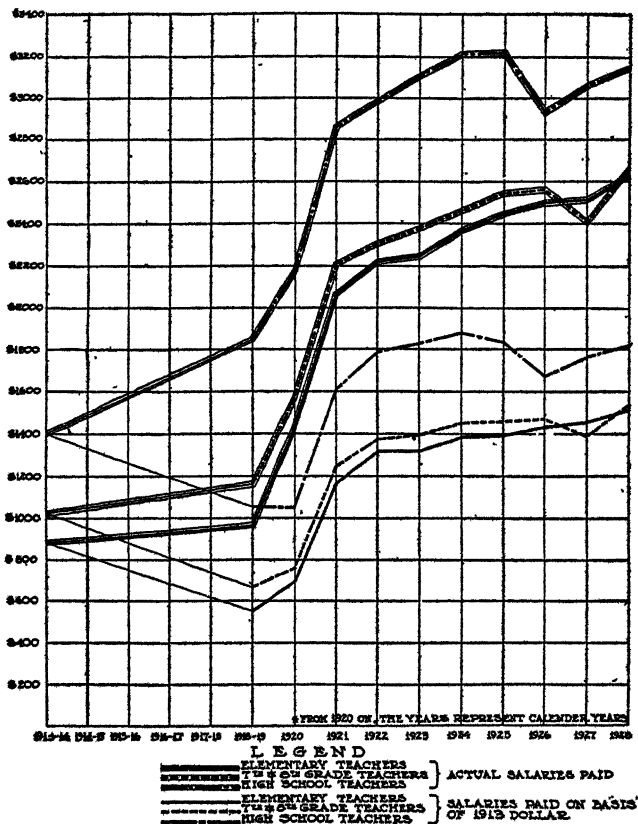
³Those who are unaccustomed to portraying statistical material in graphic form should consult a good reference on graphical statistics such as Brinton, Willard C., *Graphic Methods for Presenting Statistics*. New York: The Engineering Magazine Company, 1920.

CHART VII

GRAPH USED TO SHOW MEDIAN SALARIES

MEDIAN SALARIES PAID YONKERS TEACHERS 1913 — 1928

• IN TERMS OF ACTUAL DOLLARS PAID AND ON
 • BASIS OF THE 1913 DOLLAR •



From Teachers' Salaries in Yonkers, 1929, by W. S. Elsbree.

parisons between past and present purchasing power of teachers' salaries may be made.

The local cost of living is best secured through detailed questionnaires sent to the teachers themselves. The questionnaires should be so worded⁴ that the data can be tabulated for the following groups of teachers: (1) single teachers living away from home, (2) single teachers living as one of a family of close relatives, (3) married men teachers, and (4) married women teachers living with husband. Wherever possible, an independent investigation by a disinterested person should also be made to ascertain the cost of room and board of standard quality.⁵ Pie graphs are an excellent form in which to present these data and make possible various kinds of comparisons, as suggested in Chart VIII.

Cost of living indexes⁶ have been prepared by the United States Bureau of Labor Statistics, the National Industrial Conference Board, Paul H. Douglas, and the Massachusetts Commission on the Necessaries of Life. These are helpful, but based as they are on budgets for workingmen's families and except in one case on nationwide prices, they are not especially applicable either to teachers or to a particular community. Such general indexes or their reciprocals, indexes of the purchasing power of the dollar, represent general conditions and indicate important trends, and therefore should supplement rather than serve as a substitute for local cost of living data, unless the latter are unobtainable. By using a cost of living index salaries paid over a period of years may

⁴ For sample questionnaire, see Appendix, p. 223.

⁵ For standards for teacher's room, see Appendix, p. 229.

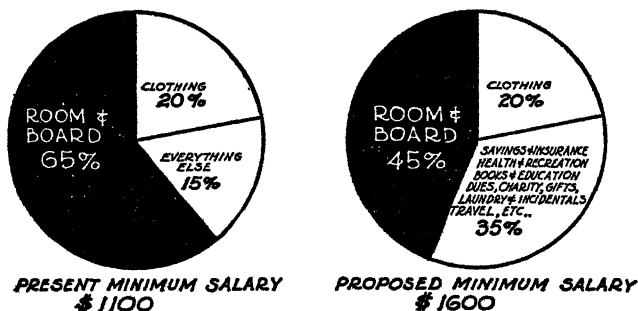
⁶ For cost of living indexes, see Appendix, pp. 217 ff.

be deflated and the approximate "real wages" of the teaching group computed. The discrepancy between real wages and nominal wages may be shown very clearly in a graph, such as Chart VII.

Dr. Harold F. Clark of Teachers College, Columbia University, in cooperation with the Research Division of the National Education Association, has prepared a cost of living index for teachers.⁷ Unfortunately this goes

CHART VIII

*THE SLICE OF THE TEACHER'S INCOME
GOBBLED UP BY LIFE'S NECESSITIES*



back only as far as 1926, but in years to come it should prove a very valuable aid in salary scheduling. Harry's study of the cost of living of teachers⁸ gives the actual cost of maintaining a specified budget in each of eighty-five communities in New York State and contains an index for place comparisons within that state. His figures

⁷ See Appendix, p. 222.

⁸ Harry, David P., *Cost of Living of Teachers in the State of New York*. Teachers College Contributions to Education, No. 320. New York: Bureau of Publications, Teachers College, Columbia University, 1928.

are for 1926 only, but any of the communities he selected could, by using the *same budget* and employing the *same technique*, make a very reliable "then and now" comparison.

III. *Facts about the Teaching Personnel*

- A. Amount of training
- B. Summer school study, travel, and professional improvement
- C. Length of service
 - 1. Total
 - 2. In the community
- D. Rate and incidence of turnover
- E. Proportion of men teachers

The purpose of this information is to show the public the quality of its school teachers and to point out the relation between salary and a high grade, competent personnel. Such data provide a basis for several types of argument, e.g., simple statements of fact, historical treatments, comparisons and contrasts with other communities, and cause and effect discussions. Thus if the vast majority of the teachers are well-trained, experienced, and professionally alert, as indicated by summer school attendance, travel, and reading, they merit substantial rewards. The community is to be congratulated on its good fortune and to be urged to retain such a valuable asset by offering commensurate salaries. A forceful way of putting this is shown in Chart IX, which may be run in the local paper in advertising space donated by some civic organization or a local business concern. On the other hand, poorly-trained, inexperienced, and indifferent teachers probably indicate salaries too low to attract or retain

capable individuals. High turnover^o—especially the loss of many excellent teachers—is frequently attributable to inadequate salaries. Finally, the proportion and qual-

CHART IX

**Congratulations,
Zonesboro!**

You are so fortunate as to possess

Better-trained teachers than your neighbors,
More experienced teachers than your neighbors,
More cosmopolitan teachers than your neighbors,

But

They won't stay long at only \$1500 a year.

ity of men teachers in the system is definitely a salary problem which the public should recognize as such. The declining percentage of men public school teachers since 1876 is shown graphically in Chart 1 which appears on page 40.

Facts about the teaching personnel can usually be obtained from the records of the board of education on file at the central office of the school system. If these are not

^oTurnover is the number of teacher-replacements. Rate of turnover is the ratio of replacements to the entire staff, and is computed by dividing the number of teachers leaving (who are replaced by others) by the average number of teachers in the school during any given school year.

up-to-date or if some particulars are missing the desired information may be secured from the teachers themselves through questionnaires.¹⁰ Data for other communities can usually be secured by writing directly to each superintendent. In states such as New York and Pennsylvania, which have rather complete personnel records of their teachers, these data may be obtained at the state department of education.

IV. *Teaching Load*

- A. Number of classes per teacher per day or week
- B. Number of preparations per teacher per day or week
- C. Size of classes
- D. Homogeneity of classes
- E. Extra-curricular demands on teachers

The public is all too prone to regard school-teaching as an easy, pleasant occupation and is inclined to pooh-pooh any suggestion that the work is either difficult or arduous unless specifically pointed out and explained. A detailed picture of the school-teacher's day with its variety and multiplicity of demands would be something of an eye-opener to most laymen.

Information as to the teaching load is usually available at the central office of the school system; if not, it may be obtained from the principal of each school. In the recent study of salaries in Springfield, Mass., an entire

¹⁰ Questionnaire returns may be regarded as fairly dependable for this type of data *if signed*; anonymous reports should *never* be accepted or utilized. Teachers should be assured that their replies will be kept confidential and used for statistical purposes only. For sample questionnaire, see Appendix, p. 223 ff.

chapter was devoted to a discussion of one aspect of teaching load; see section entitled "The Number of Pupils per Teacher," pp. 38-59, in the *Annual Report of the Springfield Public Schools*, Springfield, Mass., 1930. There is an excellent bibliography on teaching load at the close of the chapter referred to. (*Ibid.*, pp. 51-59.)

v. *Data for Comparable Communities*

A. Teachers' salaries

B. School tax-rate

C. Wealth

Comparative data are valuable for several reasons. Higher salaries in near-by towns can rightly be pointed to as a competitive danger tending to lure away the best teachers. (See Chart X, also Table 6 on p. 102.) Moreover, there is often a keen spirit of rivalry between neighboring towns which can be aroused to the good of the cause. Higher tax-rates elsewhere demonstrate to the average citizen that what he is called on to do has been done in other localities without apparent disaster and thus serves to embolden him. Knowledge that his city has as much wealth as, or more than other communities with higher taxes and better schools gives the voter a sense of financial security and also tends to awaken his civic pride. Finally, information that the teachers in his own town are equal or superior to those elsewhere, who nonetheless receive higher salaries, may come as a complete surprise and will tend to arouse his sense of fair play.

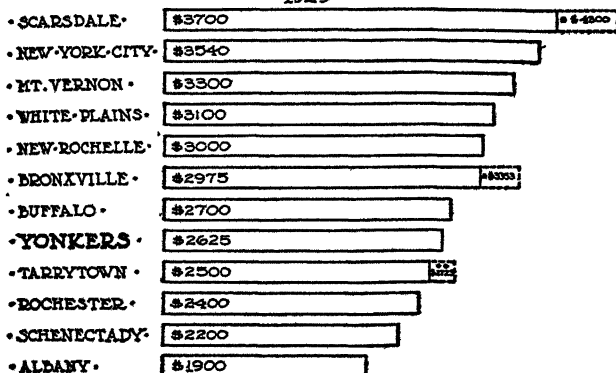
Salaries paid in other communities may be secured directly or may be obtained from the state department of education. Up-to-date salary statistics may always be secured from the Research Division of the National Edu-

cation Association, Washington, D. C., which supplies city school systems with salary data for a nominal sum. Salaries of teachers, principals, and other school employees in communities of 2,500 population and over are procurable from the same source. These are arranged in

CHART X

AN EFFECTIVE GRAPH TO SHOW COMPARATIVE SALARIES

- MAXIMUM • SALARIES • PAID • ELEMENTARY • TEACHERS •
• IN • YONKERS • AND • ELEVEN • COMPARABLE • COMMUNITIES •
• 1929 •



• — SINGLE-SALARY-SCHEDULE;
•• — SUPER-MAXIMUM •

From Teachers' Salaries in Yonkers, 1929, by W. S. Elsbree.

tabular form by school divisions for the years 1924-25, 1926-27, and 1928-29, and will continue to be prepared biennially. Tax-rates and figures for total assessed valuation are usually available in state reports and may always be had from the state department of education.

VI. School Costs and Expenditures

A. Pupil Enrollment

1. Total
2. Percentage in high school

- B. Length of school term
- C. Enriched curriculum
- D. Superior equipment and supplies
- E. Maintenance and operation

It is essential to the success of any campaign for increased salaries to convince the community that the money devoted to the schools is not only spent honestly, but wisely and economically as well. Explanations of the ever-mounting cost of schools must be in terms of increased service and must show value received. Innovations such as the kindergarten, junior high school, vocational courses, guidance, etc., require justification lest the public feel that money which might well go to the teachers as additional salary is being squandered on trimmings and non-essentials. For the same reason, evidence must be given of all possible economy in maintenance and operation.

Itemized school expenditures and costs are practically always available at the office of the superintendent of schools.

VII. *Municipal Expenditures*

- A. Salaries of city officials
- B. Total cost of various municipal services

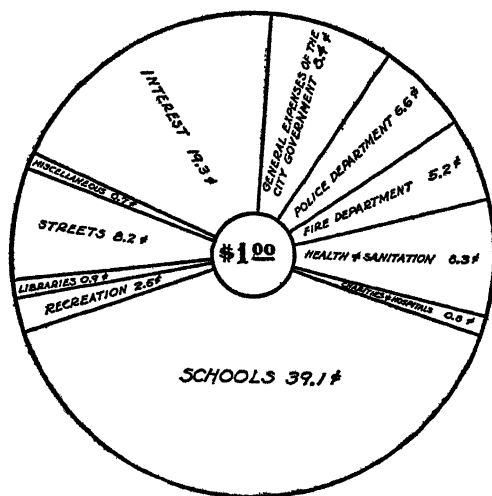
Police, fire protection, sanitation and health, roads, parks, courts, penal institutions, charitable institutions, etc.

A comparison between the salaries of policemen, firemen, jailors, and other city employees and the salaries of school-teachers, together with the duties, training, and other qualifications of each group, is usually very illu-

minating, especially in cities with fiscally dependent school boards. Furthermore, when public attention is focused on the total cost of the schools and the extent of their service compared with the benefits and expenditures of other municipal agencies, considerable pressure can

CHART XI

A PIE GRAPH SHOWING
HOW ZONESBORO SPENDS ITS DOLLAR



frequently be brought to bear to allow education a larger slice of the municipal income. A pie graph, such as Chart XI, showing the division of the taxpayer's dollar is often a convincing argument for increased school revenue.

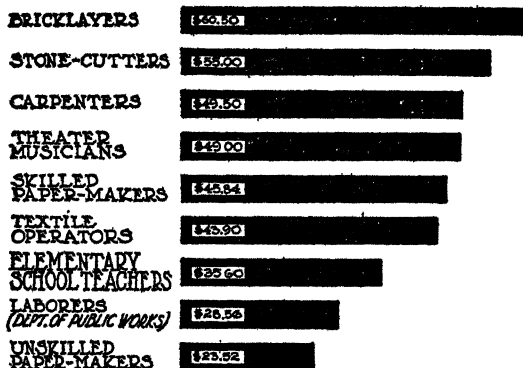
VIII. *Wages in Other Occupations*

Comparisons between teachers' salaries and the incomes of other professional workers and between teachers'

salaries and artisans' wages are very illuminating, especially when the similarities or differences in training, character, and personality necessary for the various jobs

CHART XII

ILLUSTRATION OF USE OF A BAR GRAPH TO SHOW
COMPARATIVE WEEKLY WAGES



DATA SECURED FROM "TIME RATES OF WAGES AND
HOURS OF LABOR IN MASSACHUSETTS," 1925.
DEPARTMENT OF LABOR AND INDUSTRIES.
COMMONWEALTH OF MASSACHUSETTS.

From Report of the Survey of Schools of Holyoke, Mass.,
Chart 38, p. 394. Bureau of Publications, Teachers
College, Columbia University, 1930.

are pointed out. Chart XII, which was used in the School Survey Report for Holyoke, Massachusetts, to show the wages of teachers and various other local occupational groups, is an excellent example of the graphic presentation of this type of material. These data may also be treated historically by comparing the relative and the absolute advances made by various occupational groups

over their pre-war status, with the increases in teachers' salaries during the same period. Tabular comparisons of this sort will be found in the National Education Association Research Bulletin, Vol. V, No. 3, for May, 1927, entitled *The Scheduling of Teachers' Salaries*. Still another exceedingly effective way of expressing this comparison is to point out that the school board is paying higher prices than before the War for everything it buys except instruction. Yet teaching is the essential and paramount purpose of the school; all the other things are merely auxiliary and supplementary. To favor the supplementary and degrade the essential is surely the height of folly.

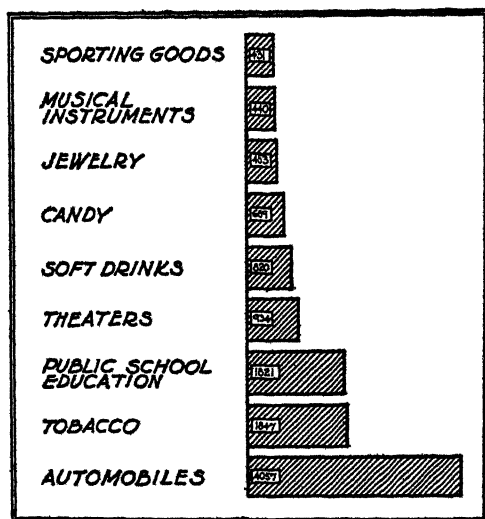
There are several excellent books containing source material for the wages of various classes of workers, including teachers. For a comprehensive historical treatment of the wages of various classes of workers see Douglas, Paul H., *Real Wages in the United States*, Houghton Mifflin Company, 1930. See also *History of Wages in the United States from Colonial Times to 1928*, United States Bureau of Labor Statistics Bulletin, No. 499, October, 1929. Recent wages for all classes of workers are given in the *Report of the Wage and Personnel Survey* of the Personnel Classification Board, House Document No. 602, 70th Congress, 2nd Session, U. S. Government Printing Office, Washington, D. C., 1929. The United States Government schedule of "Class Specifications for Positions in the Departmental Service," which gives in detail the duties and responsibilities, typical tasks, and the minimum qualifications of each class of workers, should be used in conjunction with this report.

IX. *Expenditures for Luxuries*

A popular type of comparison shows the amount of money spent annually for such things as tobacco, candy and soft drinks, cosmetics, jewelry, automobiles, radios,

CHART XIII

A GRAPHIC REPRESENTATION USED TO SHOW
AMOUNT EXPENDED FOR PUBLIC SCHOOLS AND FOR LUXURIES
IN MILLIONS OF DOLLARS 1924



Adapted from Figure 6 in A Graphic View of Recent Trends in Our Schools, by Frank M. Phillips. By courtesy of Houghton Mifflin Company.

and other so-called luxuries, compared with the amount spent on education. This is valuable in general as a Stop, Think, and Ponder device, but is not especially applicable to a local situation, since reliable data on expenditures for luxuries in a given community are rarely available.

For graphic presentation of this type of data for the whole country, see Chart XIII. A recent discussion of expenditures for luxuries will be found in the National Education Association Research Bulletin, Vol. VIII, No. 4, for September, 1930, entitled *Investing in Public Education*.

x. *State Aid*

In localities which benefit from state aid, the conditions upon which the grants are made should be explained to the people in simple terms. The desire to get something for nothing is so strongly ingrained in the mind of the average citizen that the prospect of losing a gift by failing to meet certain requirements or of not procuring as much as is easily possible is distinctly unpleasant. The local press is usually glad to devote space to constructive publicity of this character.

xi. *Ability of the Community to Pay Higher Salaries*

This very important question of the ability of the community to pay higher salaries is partially answered by comparisons with other communities, by facts and figures to show that other municipalities are paying higher taxes with only as much wealth or with even less. Tables 16 and 17 and Chart V on pages 167-69 illustrate tabular and graphic methods of presenting this type of data. It should be remembered that ability to pay is psychological rather than physical. It is much better, therefore, to discuss the cost of the new schedule in terms of how much more it will cost than the schedule now in effect, and to emphasize the increase in the tax-rate rather than the total expenditure necessitated. Gross amounts frighten

the taxpayer, who is not accustomed to thinking in terms of large sums. Hence to discuss the weekly or monthly increase in cost to the individual is at once more meaningful and less alarming. Since there is no accepted way of finding out when a community is too heavily taxed, the only reasonable course is to present the matter to the public as forcefully as possible as a question of relative values and allow them to be the final judges of what they most want for their money.

XII. *Rebuttals*

It is highly desirable to anticipate as far as possible the arguments and questions which will be raised by the opposition and to have ready appropriate replies. This material also makes a good foundation for a catechistic circular.

PRESENTING THE FACTS

Whether the appeal is to be made to the board of education, to the city council, or to the voting public, the general tone adopted at the outset will have much to do with the success of the campaign. The best attitude to assume is that the board, council, or people (as the case may be) do not realize either that there is a salary problem or that the situation is serious—that they are willing and eager to do the right thing for teachers and for the school children—and that it is only necessary to explain clearly the need for higher salaries and to suggest a reasonable solution to have the situation remedied. Blaming the board, accusing the council, or scoring the public is worse than useless; it antagonizes.

A distinction should be observed between the types of

appeal appropriate for a salary campaign for the benefit of teachers and the kinds of publicity suitable for bond issues from which no group of people except the children stand to gain directly. The teachers must not appear as beggars, nor so greatly interested in their own material welfare as to be considered mercenary. Hence, less blatancy and more dignity must attend a salary campaign than is possible in a school building drive.

Politics should never be allowed to enter into a school campaign; for this reason the promoters of the teachers' cause should not ally themselves with any party, even if there were a good prospect that by so doing they could attain their immediate object. A feeling of confidence in education in general and in the local school in particular must be maintained. Nothing should be said or suggested that will shake the confidence of the public in the school and its administrative and teaching personnel.

Media for presenting the facts to the public follow.

Salary Report

The report of the salary expert is itself a form of publicity and should by all means be printed. Copies should be given not only to every member of the citizens' committee, to each school board member, and to important city officials, but also to other influential citizens. In small communities each teacher should receive a copy of the report, while in large cities where this would be too expensive, copies should be made available to teachers at each school or through the teachers' organization. There should also be copies on file at the board of education offices, at public libraries, and in the reading rooms of clubs and organizations. If the investigation has been

carried on by the local school staff, their findings and recommendations may well be embodied in a special report of the board of education and distributed to practically the same group of people.

The Press

By far the most important single agency for getting facts before the general public is the newspaper. Feature stories and front page articles are read by a surprisingly large percentage of the public. Articles and editorials on education are read by the more thoughtful citizens, and therefore it is worth while to coöperate with the press.

The average editor is glad to help along a good cause which has the community welfare as its ultimate goal and is usually willing to run in the regular news columns any publicity material which will contribute to that end, provided it contains a real news element.¹¹ Each move in the campaign is news at the time it happens. The decision to make a salary investigation, the appointment of a citizens' committee, the decision to employ an expert, the particular expert hired, the decision to send out questionnaires, the launching of the questionnaires, the presentation of the salary report to the citizens' committee and to the board of education, and the proposed schedule itself can each be made the basis of a news article. From that point onward, the data contained in the report should furnish plenty of material for a systematic publicity bombardment. If this is properly distributed and supple-

¹¹It is not necessary to write the story, although less interesting material will be more certain of a place in the paper if this is done, *provided it is written in news form*. Whoever undertakes to direct newspaper publicity should be thoroughly familiar with the technique of newspaper writing.

HEADLINES SELECTED TO SHOW DIVERSITY OF STORY APPEARING IN METROPOLITAN PRESS

TEACHER PAY SURVEY MADE FOR THE CITY

DATA COM LEVEL
IN MOTION
TEACHERS' THANK
CITIZENS' SCALE

—Question of the "Cultural Level" Enters the Investigation

The *News of Publishing* reports, the value increased for the year. Statistics, 1960-61, says out Dr. McGowan's

Publish Prof. J. G. Gaughy's Report
 150 TEACHERS' Pay for Salary
 150 TEACHERS' School Organizations Make

[illegible][illegible]

PLAN DEBATED
Single Salaries Schedule Is Attacked by Some

From McGaughey, J. R., Teachers' Salaries in New York City

CHART XV

AN EXCELLENT TYPE OF CARTOON FOR USE IN SALARY
CAMPAIGNS

THE PUBLIC PAY ROLL

Copyright, 1935, New York Tribune, Inc.

By Courtesy of New York Tribune, Inc.

mented with endorsements from various organizations and prominent citizens and with interviews with influential people in the community, it should be possible to call public attention to some phase of the subject every day for the remainder of the drive. Chart XIV gives an idea of the character and variety of the newspaper publicity accorded the New York City salary campaign.

Charts, graphs, and brief tables also have news value if they are easy to understand and are clearly and interestingly interpreted. Cartoons are excellent eye-catchers and, if cleverly designed, they convey an idea far more effectively than words. Chart XV is an example of an effective cartoon.

Circulars

It is frequently desirable to get certain facts and arguments before the general public without relying entirely on the newspapers. This is especially true where the press is unfriendly to the campaign or where the circulation of the local paper is small. Circulars distributed to every house or carried home by school children reach a large group of people with relatively slight expense. To be effective, circulars should be fairly brief, they should be to the point, and they should be worded in an interesting fashion in order to insure a complete reading. Forcefully worded arguments, thought-provoking questions, simple tables, possibly a graph or a chart, and short, pithy statements make good filler. A catechism on the campaign issues makes a very effective circular. The circular prepared and distributed by the Perth Amboy teachers' association in a recent salary campaign illustrates this type of publicity. (See Chart XVI.)

CHART XVI
CIRCULAR USED BY TEACHERS IN A RECENT SALARY CAMPAIGN

INFORMATION

for

CITIZENS

of

PERTH AMBOY

DATE	DESCRIPTION	AMOUNT	BALANCE
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026

Meetings and Speakers

Special meetings held for the express purpose of considering the salary report, that is, mass meetings, public hearings of the board of education, and parent-teacher association meetings offer obvious opportunities for molding public opinion. Clubs and organizations, notably service clubs, the chamber of commerce, the women's club, and the college club, are usually glad to devote one of their regular meetings to a discussion of the campaign issues. The director of the survey should go to these meetings armed with large-scale charts and graphs with which to illustrate his talk. When the meeting is to be very large and there is considerable illustrative material, it would be well to use slides so that everyone can see. Whenever influential citizens who favor the salary recommendations can be secured to introduce the speaker or to comment favorably on the proposal, their public endorsements will do much to further the cause. In most instances opportunity should be given following the talk for questions.

STATE SALARY CAMPAIGNS

In addition to local salary campaigns, much can be done by the state department of education and the state teachers' association to improve the economic status of teachers. With access to a variety of data, the right to require special reports from each school district, and a staff of trained research workers, the state education department is able to obtain pertinent facts, interpret them, and disseminate information on a large scale. The state teachers' association also can be a powerful agency for the improvement of salaries generally. Its freedom from

local affiliations, its financial strength, its prestige, and its paid staff combine to put this organization in a favorable position for carrying on comprehensive salary studies.

Probably the greatest service a state teachers' association can render is the maintenance of a far-sighted, continuous publicity program. By keeping up a persistent barrage of facts and figures through its official organ, through general and professional periodicals, and through bulletins and letters, such a program can constantly impress laymen, parents, board members, school administrators, and teachers with the importance of education and the need and desirability of high salaries as a means of securing competent school personnel. By pointing out wide variations in salaries within the state it can stimulate communities where salaries are lamentably low—often the very places with the least local initiative—to bestir themselves in the interest of more pay for teachers. The circular letters used by the Michigan State Teachers Association in the salary campaign carried on there in 1919 are an excellent illustration of a type of publicity which could be used in any state.

TO SCHOOL BOARD MEMBERS:

You have been chosen by your fellow citizens to do what you can to provide good schools for the children of the community. Will you think of these things in the light of that intention?

Is not the teacher the biggest single item in the schooling of the child?

Are you paying enough to get and keep first-class teachers?

Are your teachers properly trained? If so, what are you paying for that preparation?

Can a teacher live twelve months in your city on what you pay her for teaching one school year?

If she can live there without loss, can she save anything at all?

Can you expect good professional service from under-paid servants, and would such persons have a beneficial influence over the children?

Do you know the answers to all these questions as applied to your own school system?

Yours respectfully,

COMMITTEE ON SALARIES

Michigan State Teachers' Association

Michigan State Teachers' Association, *Teachers' Salaries in Michigan*, 1919, p. 5.

TO SUPERINTENDENTS:

You, more than anyone else, are in a position of influence and control, and you can do probably more than you imagine to help or hinder the cause of education as it is affected by the matter of teachers' remuneration. Are you looking at the question with a studious and fearless interest, or are you following a penny-wise policy from force of habit or because you imagine your hands are tied? We do not pretend to know your conditions as well as you do, but we want you to consider these matters in the light of the times.

You were chosen for a leader in educational policies. Are you exercising leadership in the matter of a reasonable wage for teachers? Can you continue to deliver the goods without well paid teachers?

It was said the other day that there were only five superintendents in Michigan who were fighting for teachers' salaries. Many others are working quietly, but more fighters are needed. Let us hope there are some that he

did not count. And yet, if we put up much of a fight for salaries in our locality, it will be heard.

Will each superintendent make a firm resolve at least not to, even unconsciously, interfere with the progressive movement that is already on the way?

Yours fraternally,

COMMITTEE ON SALARIES

Michigan State Teachers' Association

Michigan State Teachers' Association, *Teachers' Salaries in Michigan*, 1919, p. 17.

TO TEACHERS:

Partly you are to blame if your own salary does not "reach."

You have accepted a position that did not pay expenses. That is unprofessional and poor business.

You have not made your own school authorities understand the position in which you have been placed by the mounting costs of living. If you told your principal or superintendent, you did not tell him emphatically enough so that the school board and the people also would know about it.

You have not organized with other teachers for the sake of being heard and considered. Instead of about 8,000 members of the M. S. T. A. in ordinary years, only about 800 at first sent their membership fees this year. And every well-informed teacher knows that the Association has many committees at work all the time in the interests of education and the teachers. You knew, for instance, that the Committee on Salaries was working in your interest. Did you send your dollar to Sec. J. P. Everett, Kalamazoo, or are you an object of charity?

Some of these things mentioned above most teachers in Michigan have neglected. Is it any wonder that such

lack of good business methods should cause the public to underpay its teachers?

Yours earnestly,

COMMITTEE ON SALARIES

Michigan State Teachers' Association

Michigan State Teachers' Association, *Teachers' Salaries in Michigan*, 1919, p. 31.

Much of the material appearing in the National Education Association Journals and Research Bulletins is suitable for general and special state-wide publicity. Charts XVII and XVIII show cartoons from this source which

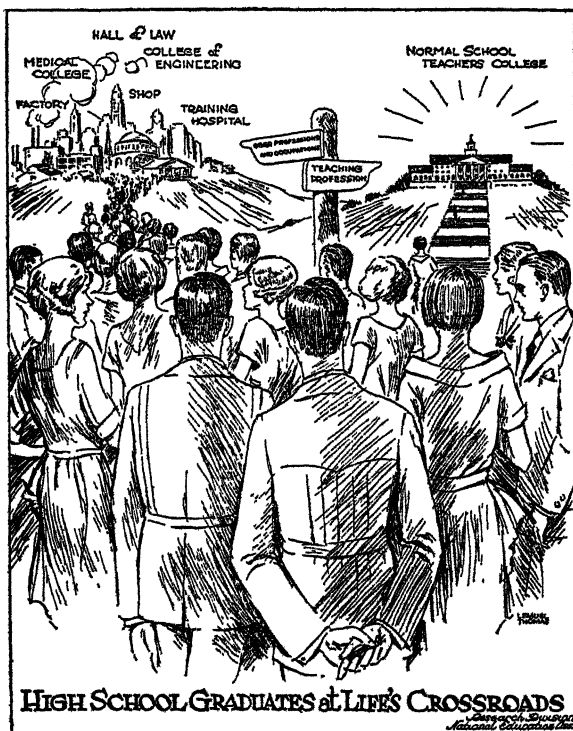
CHART XVII

AN EXCELLENT CARTOON FOR USE AS
GENERAL PUBLICITY



From the Journal of the National Education Association,
Vol. 14, No. 4, April 1925.

CHART XVIII

AN EFFECTIVE TYPE OF PUBLICITY FOR STATE SALARY
CAMPAIGNS

From Research Bulletin of the National Education Association, Vol. IV, No. 4, 1926.

are appropriate for campaigns urging higher salaries. Most of the data and forms of presentation suggested for local campaigns may also be used to good effect in a state publicity program.

SUPPLEMENTARY READINGS

Cost of Living

- DOUGLAS, PAUL H. *Real Wages in the United States*. Boston: Houghton Mifflin Company, 1930.
- HARRY, DAVID P. *Cost of Living of Teachers in the State of New York*. Teachers College Contributions to Education, No. 320. New York: Bureau of Publications, Teachers College, Columbia University, 1928.
- NATIONAL INDUSTRIAL CONFERENCE BOARD. *The Cost of Living in the United States, 1914-1929*. New York: National Industrial Conference Board, Inc., 1930.

Economics, General

- EDIE, LIONEL D. *Economics: Principles and Problems*. New York: Thomas Y. Crowell Company, 1926.
- PIGOU, A. C. *Economics of Welfare*. London: Macmillan & Company, Limited, 1929.

Economics of Teachers' Salaries

- CLARK, JOHN B. "Salaries of Teachers." *Columbia University Quarterly*, Vol. I, No. 2 (March, 1899), pp. 111-122.
- DIX, LESTER. *The Economic Basis for the Teacher's Wage*. Doctor's Dissertation, Teachers College, Columbia University, New York City, 1931.
- DYKE, CHARLES B. *The Economic Aspect of Teachers' Salaries*. Columbia University Contributions to Philosophy, Psychology and Education, Vol. 7, No. 2. New York: The Macmillan Company, 1899.

Family Allowances

DOUGLAS, PAUL H. *Wages and the Family*. Chicago: University of Chicago Press, 1927.

RATHBONE, ELEANOR F. *The Disinherited Family*. London: Edward Arnold & Company, 1924.

Graphical Statistics

BRINTON, WILLARD C. *Graphic Methods for Presenting Facts*. New York: The Engineering Magazine Company, 1920.

Publicity, School

ALEXANDER, CARTER AND THEISEN, W. W. *Publicity Campaigns for Better School Support*. Yonkers-on-Hudson, N. Y.: World Book Company, 1921.

STEVENSON, P. R. *Campaign Publicity for Schools*. Ohio State University Studies, Bureau of Educational Research Monographs, No. 5. Columbus, Ohio: The Ohio State University Press, 1926.

Salary Studies

CINCINNATI. *Report of the Committee on the Study of Salaries in the Cincinnati Public Schools*. Cincinnati, Ohio: Board of Education, 1926.

LOS ANGELES. *Teachers' Salaries in the Los Angeles City Elementary and High School Districts*. Los Angeles, California: Board of Education, 1931.

NEW YORK. *Teachers' Salaries in New York City*. Distributed by Bureau of Publications, Teachers College, Columbia University, 1927.

PITTSBURGH. *Recommended Salary Schedule and Plans for Its Administration*. Pittsburgh, Pa.: Citizens' Committee on Teachers' Salaries, 1928.

SAN FRANCISCO. Hart, F. W. and Peterson, L. H. *Teachers' Salaries in San Francisco*. San Francisco: The San

- Francisco Teachers Consolidated Salary Study Committee, Women's City Club Building, 465 Post Street, 1928.
- SPRINGFIELD, MASS. *Annual Report of the Springfield Public Schools for 1929-1930*. Springfield, Mass.: Board of Education, 1930.
- YONKERS, N. Y. Elsbree, Willard S. *Teachers' Salaries in Yonkers, 1929*. Distributed by the Bureau of Publications, Teachers College, Columbia University, New York City.

Single Salary Schedule

- MORRIS, LYLE L. *The Single Salary Schedule*. Teachers College Contributions to Education, No. 413. New York: Bureau of Publications, Teachers College, Columbia University, 1930.

State Salary Legislation

- SPENCER, PAUL. *State Minimum Teachers' Salary Schedules; a Part of Florida's State Minimum Educational Program*. Doctor's Dissertation, Teachers College, Columbia University, New York City.

Teacher-Rating

- BRUECKNER, L. J. *Scales for the Rating of Teaching Skill*. University of Minnesota Bulletin, Vol. 30, No. 12. Minneapolis, Minn.: College of Education, University of Minnesota, February 18, 1927.
- YOUNG, L. P. *The Administration of Merit Rating in Teachers' Salary Schedules*. Doctor's Dissertation, Teachers College, Columbia University, New York City.

Teachers' Salaries

- ENGELHARDT, FRED. *Public School Organization and Administration*. Boston: Ginn and Company, 1931.

MOEHLMAN, ARTHUR B. *Public School Finance*. Chicago: Rand McNally & Company, 1927.

NATIONAL EDUCATION ASSOCIATION RESEARCH BULLETINS. Especially:

Teachers' Salaries and Salary Trends in 1923, Vol. I, No. 3, May, 1923.

The Scheduling of Teachers' Salaries, Vol. V, No. 3, May, 1927.

Practices Affecting Teacher Personnel, Vol. VI, No. 4, September, 1928.

Wages

DOUGLAS, PAUL H. *Real Wages in the United States*. Boston: Houghton Mifflin Company, 1930.

HAMILTON, WALTON AND MAY, STACY. *The Control of Wages*. New York: George H. Doran Company, 1923.

ROBBINS, LIONEL. *Wages*. London: Jarrolds, Ltd., 10-11 Warwick Lane.

APPENDIX

COST OF LIVING INDEXES	217
QUESTIONNAIRE FOR TEACHERS	223
STANDARDS FOR TEACHER'S ROOM	229
EVENDEN'S PRINCIPLES FOR TEACHERS' SAL- ARIES	231
EVENDEN'S PRINCIPLES FOR SALARY LEGISLA- TION	232
FEATURES PROPOSED IN RECENT SALARY STUDIES	234
SALARY SCHEDULE FOR SPRINGFIELD, MASSA- CHUSETTS	240
SALARY SCHEDULE FOR PROVIDENCE, RHODE ISLAND	257
SALARY SCHEDULE FOR BRONXVILLE, NEW YORK	263
ESTIMATION OF THE COST OF THE CINCINNATI SALARY SCHEDULE	266

COST OF LIVING INDEXES

TABLE 18

INDEXES OF THE COST OF LIVING IN THE UNITED STATES, ON SPECIFIED DATES, JULY, 1914 TO DECEMBER, 1929, BY MAJOR ITEMS

Base, July, 1914=100

(Source: National Industrial Conference Board)

DATE	ALL ITEMS	FOOD ¹	HOUS- ING	CLOTH- ING	FUEL AND LIGHT	SUN- DRIES
1914						
July	100.0	100.0	100.0	100	100	100
1915						
July	100.5	100	100.0	103	102	100
1916						
July	108.7	111	101.5	120	104	104
1917						
July	131.3	146	105	143	126	117
1918						
June	152.2	162	115	177	135	150
November	165.0	183	120	193	140	155
1919						
March	160.5	175	122	181	142	155
July	172.2	190	128	200	142	163
November	182.2	192	138	235	148	175
1920						
March	194.8	200	149	277	149	183
July	204.5	219	158	266	166	185
November	193.1	193	166	228	200	192
1921						
March	168.7	156	171	174	187	185
July	163.1	148	169	164	179	185
November	163.0	152	169	161	179	178
1922						
March	154.7	139	165	154	174	174
July	155.6	142	165	154	174	172
November	158.4	145	167	160	186	171
1923						
March	159.2	142	170	168	186	173
July	161.9	147	175	170	176	173
November	165.3	151	180	174	176	174
1924						
March	162.9	144	185	174	172	174
July	161.7	143	186	171	166	173
November	165.2	150	184	173	168	175

¹ Food index from the U. S. Bureau of Labor Statistics, Base, 1913=100.² This figure includes an estimate of changes in the cost of fuel, based on prices of anthracite substitutes.

TABLE 18 (Continued)

INDEXES OF THE COST OF LIVING IN THE UNITED STATES, ON SPECIFIED DATES, JULY, 1914 TO DECEMBER, 1929, BY MAJOR ITEMS

Base, July, 1914=100

(Source: National Industrial Conference Board)

DATE	ALL ITEMS	FOOD ¹	HOUS- ING	CLOTH- ING	FUEL AND LIGHT	SUN- DRIES
1925						
March	165.3	151	182	173	169	175
July	168.7	160	179	175	165	175
November ..	171.8 ²	167	178	176	167 ²	175
December ³ ..	171.4 ²	166	177	177	166 ²	176
1926						
January	170.4 ²	164	177	176	166 ²	176
February	169.5 ²	162	177	176	169 ²	175
March	168.5	160	177	176	166	175
April	168.6	162	176	175	162	174
May	168.0	161	176	175	158	174
June	167.4	160	176	174	158	174
July	166.0	157	176	173	158	174
August	165.3	156	175	173	160	173
September ..	166.8	159	175	174	161	173
October	167.2	160	174	173	163	174
November	168.2	162	174	173	170	173
December	168.4	162	173	174	169	174
1927						
January	166.9	159	173	173	168	174
February	165.2	156	172	172	167	174
March	164.1	154	172	172	166	173
April	163.7	154	171	172	161	173
May	163.7	155	170	171	160	173
June	164.8	159	169	169	160	172
July	162.2	153	168	169	160	173
August	162.0	152	169	170	161	172
September ..	162.8	154	168	171	162	172
October	163.7	156	167	170	163	173
November	164.2	157	167	171	163	173
December	163.6	156	166	171	163	173

¹ Food index from the U. S. Bureau of Labor Statistics, Base, 1913=100² This figure includes an estimate of changes in the cost of fuel, based on prices of anthracite substitutes.³ Beginning in December, 1925, the cost of living index for all months was placed on an identical basis, instead of those for March, July and November being on a more comprehensive scale than those for intervening months. The December, 1925 figures are, therefore, strictly comparable with figures for other months in the table.Taken from *The Cost of Living in the United States, 1914-1929*, Table 6. National Industrial Conference Board, Inc., New York, 1930.

TABLE 18 (Concluded)

INDEXES OF THE COST OF LIVING IN THE UNITED STATES, ON SPECIFIED DATES, JULY, 1914 TO DECEMBER, 1929, BY MAJOR ITEMS

Base, July, 1914=100

(Source: National Industrial Conference Board)

DATE	ALL ITEMS	FOOD ¹	HOUS- ING	CLOTH- ING	FUEL AND LIGHT	SUN- DRIES
1928						
January	163.1	155	166	172	163	172
February	161.5	152	165	171	163	172
March	161.1	151	165	173	163	171
April	160.8	152	163	171	160	171
May	161.5	154	163	171	158	171
June	160.9	153	162	171	158	171
July	161.1	153	161	174	158	171
August	161.4	154	161	173	159	171
September	163.4	158	161	174	160	171
October	162.9	157	161	173	161	171
November	162.6	157	160	172	162	171
December	162.0	156	160	170	163	171
1929						
January	160.9	154.6	159.4	168.9	162.6	170.0
February	161.0	154.4	159.2	170.1	162.4	170.1
March	159.8	153.0	159.4	166.1	162.3	169.7
April	159.3	151.6	159.5	168.1	159.6	169.5
May	159.4	153.3	159.5	167.0	156.6	168.1
June	160.0	154.8	159.4	166.8	156.5	168.3
July	161.6	158.5	159.3	166.2	157.0	168.7
August	162.9	160.2	159.4	169.2	157.7	169.1
September	163.2	160.8	159.9	167.7	159.4	169.1
October	163.4	160.5	159.6	168.4	161.2	170.0
November	163.0	159.7	159.3	168.0	161.6	170.1
December	162.0	158.0	158.8	168.9	161.9	168.6

¹Food index from the U. S. Bureau of Labor Statistics, Base, 1913=100.

TABLE 19

INDEXES OF THE COST OF LIVING IN THE UNITED STATES, BY MAJOR ITEMS,
COMPUTED BY THE UNITED STATES BUREAU OF LABOR STATISTICS

Base, 1913=100

DATE	FOOD	RENT	CLOTH- ING	FUEL AND LIGHT	HOUSE FUR- NISHING GOODS	MISCEL- LANEOUS	ALL ITEMS
1914							
December ..	105 0	100.0	101 0	101.0	104.0	103.0	103.0
1915							
December .	105.0	101.5	104.7	101.0	110 6	107.4	105.1
1916							
December ..	126.0	102.3	120.0	108 4	127.8	113.3	118.3
1917							
December ..	157.0	100.1	149.1	124 1	150 6	140 5	142.4
1918							
December .	187.0	109.2	205.3	147 9	213.6	165.8	174 4
1919							
December ..	197.0	125 3	268.7	156 8	263.5	190.2	199.3
1920							
December ..	178.0	151 1	258.5	194 9	285.4	208.2	200.4
1921							
December ..	149.9	161.4	184.4	181.1	218 0	206.8	174.3
1922							
June	140.7	160.9	172.3	174.2	202 9	201.5	166.4
December ..	146.6	161 9	171.5	186.4	208.2	200.5	169.5
1923							
June	144.3	163 4	174.9	180.6	222.2	200.3	169.7
December ..	150 3	166.5	176 3	184 0	222.4	201 7	173 2
1924							
June	142.4	168.0	174.2	177.3	216.0	201.1	169.1
December ..	151.5	168.2	171.3	180.5	216.0	201.7	172.5
1925							
June	155.0	167.4	170 6	176.5	214.3	202.7	173.5
December ..	165.5	167.1	169.4	186.9	214.3	203.5	177.9
1926							
June	159 7	165.4	168.2	180.7	210.4	203.3	174.8
December ..	161.8	164.2	166.7	188 3	207.7	203.9	175.6
1927							
June	158.5	162.1	164.9	180.8	205.2	204.5	173.4
December ..	155.9	160.2	162.9	183.2	204.6	205.1	172.0
1928							
June	152.6	157.6	162.6	177.2	201 1	205.5	170.0
December ..	155.8	155.9	161.9	183 3	199.7	207.1	171.3
1929							
June	154 8	153.7	161.3	175.2	198.5	207.3	170.2
December ..	158.0	151.9	160.5	178.7	197.7	207.9	171.4

Taken from *The Cost of Living in the United States, 1914-1929*, Table 23. National Industrial Conference Board, Inc., New York, 1930.

TABLE 20

INDEXES OF THE COST OF LIVING IN MASSACHUSETTS, COMPUTED BY THE
SPECIAL COMMISSION ON THE NECESSARIES OF LIFE (MASSACHUSETTS)

Base, 1913=100

DATE	FOOD	SHELTER	CLOTH- ING	FUEL AND LIGHT	SUN- DRIES	COM- BINED	COM- BINED RECOM- PUTED ON A JULY, 1914 BASE¹
1914							
July	103.3	103.5	101.7	97.3	100.0	102.1	100.0
1915							
December ..	103.0	104.1	108.8	100.7	101.5	103.5	101.4
1916							
December ..	124.7	105.3	125.2	113.3	109.0	117.5	115.1
1917							
December ..	155.7	103.1	159.9	114.7	130.0	139.6	136.7
1918							
December ..	183.1	116.4	209.4	143.1	155.0	166.1	162.7
1919							
December ..	189.1	129.6	272.3	143.5	175.0	184.7	180.9
1920							
December ..	179.6	151.7	226.0	189.9	192.0	183.9	180.1
1921							
December ..	139.4	161.0	186.1	180.5	178.0	159.6	156.3
1922							
June	134.1	162.5	176.5	172.7	174.0	155.0	151.8
December ..	139.8	162.5	179.4	184.8	168.8	157.5	154.3
1923							
June	140.0	167.0	184.1	177.4	170.5	158.9	155.6
December ..	144.1	167.5	186.1	181.7	170.5	161.3	158.0
1924							
June	137.1	168.0	181.6	177.2	171.4	157.7	154.5
December ..	143.0	172.0	181.2	179.6	172.2	161.2	157.9
1925							
June	146.8	172.0	182.3	176.6	172.2	162.8	159.5
December ..	155.6	170.0	186.6	197.4	172.2	168.0	164.5
1926							
June	148.3	168.0	181.2	182.0	170.5	162.5	159.2
December ..	147.9	168.0	177.5	185.5	171.4	162.3	159.0
1927							
June	145.5	166.0	173.3	178.4	170.5	159.7	156.4
December ..	145.0	165.0	172.8	181.4	170.5	159.5	156.2
1928							
June	144.6	165.0	172.1	175.4	170.0	158.7	155.4
December ..	147.6	163.0	172.8	179.6	170.0	160.0	156.7
1929							
January	148.5	163.0	173.3	179.5	170.0	160.5	157.2
February	146.5	163.0	170.1	179.6	169.2	159.0	155.7
March	147.6	163.0	174.1	179.7	169.2	160.0	156.7
April	147.7	163.0	173.6	177.9	168.9	159.8	156.5
May	149.1	163.0	173.6	174.2	168.9	160.2	156.9
June	148.1	163.0	173.6	174.2	167.9	159.6	156.3
July	151.8	163.0	172.2	176.4	167.7	161.1	157.8
August	154.7	163.0	173.6	176.3	167.7	162.5	159.2
September ..	153.0	163.0	173.2	178.9	167.7	161.9	158.6
October	152.1	163.0	173.5	179.0	168.4	161.7	158.4
November	149.3	163.0	173.6	179.1	169.2	160.7	157.4
December ..	148.9	163.0	174.0	170.3	160.2	160.6	157.3

TABLE 21

INDEX OF TEACHERS' SALARIES IN THE UNITED STATES

Prepared by Dr Harold F. Clark of Teachers College, Columbia University, in cooperation with the Research Division of the National Education Association

		WAGES IN DOLLARS 1926=100	INDEX OF THE COST OF LIVING 1926=100	INDEX OF REAL WAGES
	1 Month	2 Index	3 Index	4 Index
1929	April	109.2	97.0*	112.6*
	March	109.2	97.2*	112.3*
	February	109.2	97.1	112.5
	January	109.2	97.3	112.2
1928	December	109.2	96.9	112.7
	November	109.2	97.3	112.2
	October	109.2	97.9	111.5
	September	109.2	99.7	109.8
	August	106.5	98.8	107.8
	July	106.5	98.2	108.4
	June	106.5	97.2	109.5
	May	106.5	97.8	108.8
	April	106.5	96.8	110.0
	March	106.5	95.6	111.4

* Not final.

The indexes in Column 4 are obtained by dividing Column 2 by Column 3.

Taken from *School and Society*, Vol. XXIX, No. 750 (May 11, 1929), pp. 603-4.

CONFIDENTIAL SALARY REPORT OF TEACHERS YONKERS, NEW YORK

You are invited to fill out the following questionnaire. The report which you make will be entirely confidential. No teacher's name will be given in connection with the facts reported. Make your report as accurate and complete as possible. Unsigned reports cannot be used. A study based upon anonymous reports would be unconvincing and worthless.

WILLARD S. ELSBREE,
Field Director.

I. PERSONAL DATA

CODE*

1. Your name
 (Last name) (First name) (Middle name)

2. Designate sex with check mark

Male 1-y

Female 1-x

3. Designate with check mark Marital Status

Single 1-o

Married 1-1

Widowed 1-2

4. Your local residence address

5. Your position in the school system 1-
 (indicate division, e. g. elementary teacher, junior high 2-
 school teacher, junior high school art supervisor, etc.)

 If a teacher, what grade or subjects do you teach?

.....*..... (3, 4)-

6. What was the date of your first appointment in the Yonkers
 public school system? (5, 6)

* Coded for Hollerith Card.

II. TEACHING EXPERIENCE

7. Total number of years you have taught previous to this year
 (7, 8)-
8. How many years have you taught in Yonkers previous to this
 year? (9, 10)
9. In the blanks below, report teaching experience in Yonkers since 1918:
 (Note example in first space)

YEAR	NATURE OF POSITION, GRADE AND SUBJECT TAUGHT	ANNUAL CONTRACT SALARY	
e. g. 1925	H. S. Teacher, grades 10 and 11 English and History	\$2200-	
1918			(11, 12)- 33-
1919			(13, 14) 34-
1920			(15, 16) 35-
1921			(17, 18) 36-
1922			(19, 20) 37-
1923			(21, 22) 38-
1924			(23, 24) 39-
1925			(25, 26) 40-
1926			(27, 28) 41-
1927			(29, 30) 42-
1928			(31, 32) 43-

III. EDUCATIONAL PREPARATION

10. In this section, please record your education to date. Fill in completely. For example, if you completed four years of high school, circle the figure 4 opposite high school in *Column 4*. If you completed three years of college, circle the 3 opposite college or university. Under summer sessions fill in the name of the institution and date for each summer session attended.

1 TYPE OF INSTITUTION	2 NAME OF IN- STITUTION	3 LOCATION OF IN- STITUTION	4 YEAR OR GRADE COMPLETED	5 DATES ATTENDED	6 DIPLOMA OR DEGREE	
High School (Secondary)			1 2 3 4			II-
Normal or Teacher Training School			1 2 3 4			II-
College or University (Undergraduate)			1 2 3 4			II-
Graduate (Beyond B.S. or B.A. degree)			1 2 3 4			
Summer Sessions			No. of Sessions	Total Weeks		
Extension Work and Part Time Attendance						

SUMMARY OF PREPARATION

- (1) Number of years of high school completed II-
- (2) Number of years of normal school or teacher training school completed during the regular school year II-
- (3) Number of years of college or university completed (undergraduate) during the regular school year 12-
- (4) Number of years of graduate work completed during regular school year 12-
- (5) Number of years of training or fraction thereof completed in summer school (count 30 points as one year) 13-
- (6) Number of years or fraction thereof completed in extension and part-time courses (e. g. Saturday and late afternoon classes) 13-
- (7) Total number of years of preparation above elementary school (14, 15)-

II. Give the name of the New York certificate which you now hold; if you hold more than one, report the highest.

.....
(Date issued)

SALARY DATA

12. Fill in the blanks below to indicate the sources and amounts of your *earned income* for the year beginning January 1, 1928, and ending December 31, 1928.

A. Amounts of earned income received from the Board of Education

(a) During the Regular School Year

1. Salary for day school	\$	(16, 17)-
2. Salary for evening school	\$	18-
3. Salary for other work for Board of Education	\$. . .	19-

(b) During the Summer Vacation

1. Salary for day school	\$	20-
2. Salary for evening school	\$. . .	21-
3. Salary for other work for Board of Education	\$	22-

(c) Total amount received from Board of Education during entire year	\$	(23, 24)-
---	--------------	-----------

- B. Earnings from sources other than Board of Education
(Include *earnings* only and not the income from interest, rents, royalties, annuities, life insurance, etc.) Specify how you earned this additional income on blank lines below.

(a) During the Regular School Year

1.	\$	
2.	\$	
3.	\$	
4.	\$	
5.	\$	
Total	\$	(25, 26)-

(b) During the Summer Vacation

1.	\$	
2.	\$	
3.	\$	
4.	\$	
5.	\$	
Total	\$	27-

APPENDIX

227

C. Grand Total of all earnings for entire year from all sources	\$	(28, 29)-
---	----------	-----------

COST OF LIVING DATA

13. If you were teaching as a regular full-time teacher before entering the Yonkers public school system what was your annual salary for the last year of that service? \$ (30, 31)-
14. What was your total expense on account of summer school attendance?

in 1926	\$	32-
in 1927	\$	33-
in 1928	\$	34-
15. What was your total expense on account of part-time courses or extension courses,

in 1926	\$	35-
in 1927	\$	36-
in 1928	\$	37-
16. How many persons, not including yourself, are chiefly dependent on your income? 38-
17. What is your monthly expense for food? \$ 39-
(Answer the questions of 18 or 19 or 20. Answer one only.)
18. If you are married and are living with wife (or husband) answer these questions:
 - (a) How many children have you? 39-
 - (b) What is the annual rental (or rental value, if you own your own home) of the apartment or house in which you live? \$ 40-
 - (c) If rented does the landlord supply furnishings? Yes ... 41-y-
No ... 41-x-
 - (d) If rented does the landlord supply heat? Yes ... 41-o-
No .. 41-i-
 - (e) If rented does the landlord supply janitor service?
Yes ... 41-2
No ... 41-3

STANDARDS USED IN SECURING COST OF ROOM RENT IN NEW YORK STATE

(Adapted from Y. W. C. A. Room Registries Standards and Strayer-Engelhardt School Building Standards)

NEIGHBORHOOD

1. Preferably the house should be located in a neighborhood that is free of noises, dangers, polluted air and malodors. The immediate vicinity of railroad yards, of dangerous railroad crossings, of offensive trades, and the congestion of the business centers should be avoided.
2. The house should be located near local transportation facilities.
3. Preferably the house should be located on a street (or section of a street) that is entirely residential.

THE INDIVIDUAL IN CHARGE OF THE HOUSE

1. The house should be in charge of a person whose references as to personal character have been accepted by the Y. W. C. A. Room Registries or by the local school authorities. (The recommendation of other recognized social agencies is acceptable.)
2. In general, the house that habitually receives transient roomers without character references should not be listed.
3. These requirements limit the house to the private family home or to that type of boarding house that serves a relatively permanent group. (Teacherages, women's dormitories, hotels that cater only to women, and other hotels in which groups of teachers are now residing can be accepted as satisfactory.)

THE HOUSE

1. The building should be kept in constant repair.
2. The building should be clean.
3. There should be good provision for natural as well as artificial lighting.
4. The heating plant should be able to maintain a temperature of 65-68° F. on the coldest days.
5. The house should have adequate fire protection. If the room is on the third or higher floor there should be either fire escapes or fireproof stairwells to which there is clear passageway. By fireproof stairwell is meant an enclosed stairway, constructed of fireproof material.
6. There should be an indoor bathroom—completely equipped with superior sanitary equipment (toilet, porcelain bowl, porcelain or

enameled iron tub, hot and cold water, mirror). The bathroom should not be located on a hall to which the general public has access.

No more than six people should be expected to use one bathroom.

7. The roomer should have laundry and pressing privileges.

8. There should be a room in the building, other than a bedroom, in which the roomer may receive men guests. The common name for this room is parlor, living room, office, reception room.

THE BEDROOM

1. The room should be occupied by one person.

2. The room should have a floor area of 120-150 sq. ft.; with at least one window of 12 sq. ft. area communicating directly to outside air.

The next building should be at least 12 feet away from the window.

3. The room should have adequate heat (65-68° F. on coldest days) secured by methods other than by an oil or gas stove in the room.

4. The room should have an adequate amount of natural as well as artificial light. Both should permit of close work at the desk. Rooms opening on enclosed courts generally do not give adequate light.

5. Do not consider a room without doors (that can be closed), or one that can be reached only through another sleeping room.

6. Emphasis should be placed on livableness rather than on specific articles of furniture in determining what furniture may be deemed adequate. A comfortable bed (at least 3 feet wide), sufficient covers, suitable dressing conveniences with mirror, sufficient drawer and closet space, one straight and one low chair, a suitable floor covering, a table or desk with bookshelves, and a reading lamp seem adequate.

Taken from Harry, David P., *Cost of Living of Teachers in the State of New York*, p. 27. Teachers College Contributions to Education, No. 320. New York: Bureau of Publications, Teachers College, Columbia University, 1928.

E. S. EVENDEN'S PRINCIPLES GOVERNING TEACHERS' SALARIES

"1. Minimum salaries for all teachers should be high enough to afford a living wage for twelve months at the standard of living demanded of teachers. The sooner this becomes \$1,200.00, or more, for every beginning teacher with Normal School training, and \$1,500.00, or more, for those with college training, the better for the schools of this country

"2. Minimum salaries should vary for different amounts of training secured by the beginning teacher.

"3. Maximum salaries should be high enough to justify looking upon teaching as a career, rather than as a temporary or "stepping stone" job.

"4. Maximum salaries should vary according to the preparation of teachers. The more time and money a teacher spends in preparation to teach, in other words, the more he invests in his training the larger should be his returns. Teachers with standard Normal School training should be able to attain a maximum salary of from \$2,000 to \$3,000, and the teachers with college or university training should be able to attain from \$3,600 to \$5,000 as teachers

"5. Even though maximum salaries generally should serve the purposes just listed, it should also be common practice to pay teachers of unusual ability more than the scheduled maximum. Teachers should realize that 'the top is open.'

"6. There should be no salary distinctions between various school divisions when training and experience are the same.

"7. Salary increases or annual increments should be of sufficient size to be perceptible in the teachers' annual budget. They should approximate 10 per cent of the salary.

"8. Increases should vary in number and amount for teachers with varying amounts of training and experience. Six increases are recommended for two-year normal-school graduates, and ten or more for graduates of colleges and universities representing four or more years beyond the high school.

"9. Successful experience in other cities should be recognized when a teacher is employed in a city.

"10. Increases should not be given automatically to all teachers who are retained in the system. Instead they should serve as a constant incentive to growth and development during teaching."

E. S. EVENDEN'S PRINCIPLES GOVERNING SALARY LEGISLATION

"There are nine elements which are generally enough accepted to be called principles underlying the payment of teachers' salaries. These should govern all salary legislation, whether state or local. Briefly stated, they are:

"1. The more and the better the academic and professional preparation a teacher has, other things being equal, the more salary he should receive.

"2. The more *successful* experience a teacher has had in the particular field in which he is working, other things being equal, the more salary he should receive.

"3. Every teacher is entitled to a minimum salary which will provide a living wage for twelve months and at a standard of living which will attract young people of refinement and ability to teaching.

"4. Every successful teacher should find it possible to pass from a mere living wage to an 'economic independence wage' and from that to a 'cultural wage.' (The first of these, the 'economic independence wage,' should provide the teacher with a salary adequate to meet his necessary expenses and those of his dependents, with leeway enough to provide for necessary professional advancement and above that a margin of saving for insurance and investment. The second, or 'cultural wage,' should be enough to provide for economic independence and still allow for travel, additional study, the best in music, literature, art, etc., thus to keep the teacher, a true representative of the best in the social inheritance of the race.)

"5. Salaries should vary according to the size of the city and in relation to the cost of living as influenced by this element.

"6. Salary increases and attainable maximums should be so arranged that they (a) offer a career in teaching, (b) induce the best young men and women from the high schools to enter the work, and (c) secure constant improvement during the time of teaching.

"7. Other elements being the same, the teacher in the grades should receive as much salary as the teacher in any other school division.

"8. There should be enough *flexibility* in any salary schedule to provide extra pay for teachers of extra ability. The realization that hard conscientious work, increasing experience, and continued educational advancement may be rewarded by extra returns as in other branches of work, will be a large factor in bringing capable people into teaching.

"9. In any established salary schedule, it will allow greater freedom in its application, if elaborate distinctions are not made between all the classes of special teachers, supervisors, assistants, and others. If the schedule provides an adequate living wage for all employees, it is very easy to adjust the salaries of any teachers whose special work demands additional ability or preparation. For example, it would be easier and just as equitable, if a board should demand that all teachers of open air classes or of cardiac classes should have training in nursing in addition to their other preparation, to pay them \$200 or \$300 in addition to the salary they would receive as regular teachers."

Taken from *Essential Features of a State Salary Law*, by E. S. Evenden, in the *Educational Review*, Vol. 60, No. 8, October 1920, pp. 206-07.

FEATURES PROPOSED IN RECENT SALARY STUDIES

New York City

1926

Equal Pay

Equal pay is provided for men and women teachers. The State Law allows no discrimination in salary on account of sex.

Type of Schedule

Salary is dependent upon type of position, that is, kindergarten teachers receive a minimum of \$1,620 and a maximum of \$3,708, whereas senior high school teachers' salaries range from \$2,280 to \$5,316.

Minimum and Maximum Salary

Cost of living of "indispensable groups" constituted the chief basis for determining both the minimum and the maximum salary for elementary and high school teachers. The single woman teacher living away from home was considered "indispensable" in the elementary school, and the married man teacher with one child was considered "indispensable" in the high school.

Increments

The first three or four increments are small and are followed by larger annual increments throughout the remainder of the schedule. The number of increments varies with type of position. Eleven regular increments are proposed for elementary teachers; nine for junior high school teachers; and fifteen for senior high school teachers.

Supermaximum

A supermaximum salary is provided for teachers whose professional preparation exceeds by one or more years the minimum requirements for license. Special provision is made for promoting teachers with thirty or more years of experience beyond the regular maximum, regardless of their training.

Cincinnati

1927

Equal Pay

No discrimination is made in teachers' salaries on account of sex.

Type of Schedule

A single salary schedule is proposed, based upon amount of training and experience. Salary increases are conditional upon teachers' showing evidence of approved cultural and professional study, together with satisfactory work and growth in teaching power.

Increments

The size of increments increases with each additional year of training.

Special Provisions

Training requirements are raised to college graduation for all new teachers.

"Service Credit" is allowed those teachers who have taught in the local schools for a period of more than ten years. Each year of service beyond the tenth year is considered equivalent to two points of professional preparation. No service credit is allowed for experience subsequent to September 1, 1926. The maximum number of points of service credit allowed any teacher is thirty.

Pittsburgh

1928

Equal Pay

No discrimination in salary is made between men and women teachers.

Type of Schedule

Type of position is recognized, that is, elementary teachers are on a lower scale than junior and senior high school teachers.

Increments

Increments for all groups of teachers are automatic to the normal maximum. Ten increments are provided for elementary teachers; six for junior high school teachers; and eight for senior high school teachers. The amount of the annual increment for elementary teachers is \$100; for junior and senior high school teachers, \$175.

Supermaximum

After reaching the normal maximum, the most capable teachers can receive still higher salaries by being promoted to a superior teaching level. There are five gradations in this superior rank, each carrying with it an appropriate stipend. The number of teachers eligible for this type of promotion is limited to 45 per cent of those who have reached the

regular maximum for elementary, junior high school, and senior high school teachers.

Administration

A personnel department is to be established, one of the functions of which is to administer the salary schedule and to determine who are the superior teachers.

San Francisco

1928

Equal Pay

Equal pay is provided for men and women. The California State Law does not permit discrimination in salary on account of sex.

Type of Schedule

Salaries vary with type of position, that is, the minimum salary for elementary teachers is \$1,380 and the maximum is \$2,928; for junior high school teachers, the minimum is \$1,656 and the maximum is \$3,492; and for senior high school teachers, the minimum is \$1,860 and the maximum is \$3,900.

Minimum and Maximum Salaries

In establishing the minimum and maximum salaries, costs of living of indispensable groups and salaries in comparable communities were considered. No specific formula, however, was applied.

Increments

Two training hurdles are incorporated in the schedule. Increments are automatic¹ for the first four years, but the fifth increment is dependent upon the teacher's obtaining a specified amount of professional training. Teachers who qualify for this increment receive four more automatic annual increases in salary. The tenth increment is again conditional upon the securing of further training, after which there are two more automatic increases to the normal maximum. Thus twelve increments are provided for all groups of teachers who secure the requisite training. The increments are smaller at the lower end of the scale and increase in size each year up to the sixth for elementary and junior high school teachers and up to the fifth increment for senior high school teachers.

¹ Although increments are termed automatic, the Personnel Department may withhold increment if in its judgment the teacher does not merit it.

Reward for Superior Training and Experience

In the case of senior high school teachers, two additional increments beyond the normal maximum are provided for teachers with "superior training and distinguished service."

Provision is made also whereby an elementary teacher who has taught two years at the normal maximum (\$2,928) and who has the equivalent of five and one-half years of approved training beyond high school graduation, may, upon recommendation of the Department of Personnel, the approval of the Superintendent of Schools and special action of the Board of Education, be transferred to the tenth year level of the junior high school teachers' salary scale, from which level progress may be made as in the case of junior high school teachers, except that approval of the Department of Personnel shall be in terms of elementary teaching. A similar provision is made whereby junior high school teachers with two years of experience at the normal maximum may be transferred to the senior high school scale and proceed to the normal maximum and the supermaximum for senior high school teachers.

Yonkers

1929

Equal Pay

Equal pay is provided for men and women. The New York State Law does not permit discrimination in salary on account of sex.

Type of Schedule

Salaries are based wholly upon amount of training and experience.

Minimum and Maximum Salaries

Both cost of living and salaries in comparable cities were used as bases for establishing minimum and maximum salaries; the Michigan standard¹ was applied in the case of teachers on the lowest training level.

Increments

Ten increments are provided for each level of training. The size of the increment increases with each additional year of training: teachers with three years of training receive increments of \$125; those with four years of training, \$150; and those with five years of training, \$175. The size of the increment does not vary with experience.

¹ The proportion of a teacher's budget required for food, rent, and laundry should not exceed 55 per cent.

Indeterminate Maximum

An indefinite maximum is provided for those teachers with five years of training above high school graduation who have reached the normal maximum and who, in the opinion of the supervisors, superintendent, and board of education, are rendering conspicuous service. The size of the group which may be advanced to the indeterminate maximum is limited to 20 per cent (at any one time) of the teachers who have reached the normal maximum.

Springfield, Mass.

1930

Sex Discrimination

Men teachers receive more than women teachers with the same qualifications.

Type of Schedule

Recognizes type of position. Elementary teachers with three years of training receive less than junior or senior high school teachers with the same training and experience.

Increments

Nine or ten increments are provided for most groups of teachers. Increments are larger for senior high school teachers than for elementary and junior high school teachers. Increments are automatic for all groups of teachers. Teacher-rating does not affect salary.

Special Provisions

Teachers with five or more years of experience in Springfield may substitute service credit for training credits. It is possible for teachers with twenty years of experience in the local schools to secure credit equivalent to one full year of college preparation. No service credit will be given for service rendered subsequent to September 1, 1930.

Los Angeles

1931

Equal Pay

The recommended schedule applies to men and women alike. A California statute provides that there shall be no discrimination in salary on account of sex.

Type of Schedule

Although the principle of the single salary schedule is used as an argument for lessening the differentiation between salaries paid high school and elementary teachers under the present schedule, a considerable distinction is maintained in the recommended schedule. The minimum for elementary teachers is \$1500 and for junior and senior high school teachers, \$1800. The maxima are \$2950 and \$3330 respectively.

Minimum and Maximum Salaries

The minimum salaries recommended are based on the average minimum paid in sixteen comparable cities. The maximum salaries are based upon a consideration of salaries paid various other employees, public and private; cost of living;¹ and maximum salaries in other large cities.

Increments

Sixteen increments are provided for all regular teachers. Certain of these increments are automatic and certain are conditional. It is recommended that, in general, the third increment and each fourth thereafter be granted only after certain regulations or conditions, which shall be established or determined by the Superintendent of Schools and which involve additional training and meritorious service in the position held, have been satisfied. The increments are not equal, being considerably larger at those points where the schedule is not automatic but where advancement is dependent upon additional training and meritorious service.

Administrative Flexibility

Considerable flexibility in the administration of the schedule is provided by those recommendations which leave to the Superintendent of Schools the establishment of provisions pertaining to further training and meritorious service.

¹ The cost of living studies include certain estimates for the total cost of living of a "standard family" of 3.5 persons, and the cost of rent and food of Los Angeles high school teachers. The conclusion is reached that the cost of rent and food for Los Angeles teachers should not exceed 50 per cent of income.

SALARY SCHEDULES OF THE SPRINGFIELD PUBLIC SCHOOLS¹

Effective September 1, 1930

I. PURPOSES

The main purposes of these salary schedules are to offer the teachers of Springfield a satisfactory economic return and yet not unduly burden the taxpayers; to secure and retain in Springfield competent teachers who have professional preparation equal to that required of those who engage in other professions requiring technical skill and knowledge; to discourage the employment or retention of incompetent teachers; to define conditions of service; and to encourage teachers to improve the quality of their teaching service.

II. PUPIL-TEACHER RATIOS

1. The standard pupil-teacher ratio in the elementary schools, exclusive of kindergartens and special classes, is 35 to 1.

2. The standard pupil-teacher ratio in junior high schools with forty or more teachers is 27 to 1; in junior high schools with fewer than forty teachers, 25 to 1, except that the standard pupil-teacher ratio in the State Street School is 22 to 1.

3. The standard pupil-teacher ratio in the Central High School and the High School of Commerce is 25 to 1, and in the Technical High School, 22 to 1.

4. The pupil-teacher ratio of a school is derived by dividing the pupil membership on October 1 or March 1 by the number of teachers, not including the principal or clerks, but including all part-time and special teachers for that fraction of their time which they spend in the school.

III. THE TEACHER LOAD

1. *Extra-Curricular Activities*

In addition to teaching and supervision, each teacher is subject to assignment by the principal to responsibility for a portion of the miscellaneous services and activities of the school. The direction of and participation in the various extra-curricular activities of the school are considered as much a part of the teacher's normal load as actual classroom teaching.

¹ From the *Annual Report of the Springfield Public Schools*, pp. 96-114. Springfield, Mass., 1930.

2. *Elementary Schools*

The salary schedules for grades 1-6 are based on the assumption of a normal assignment of 36 pupils per teacher. The average kindergarten class will have 25 to 35 pupils; under certain conditions an assistant may be provided when the class enrollment exceeds 35 pupils.

3. *Junior High Schools*

In the junior high schools the normal assignment will be 23 sixty-minute periods per week of regular class instruction or supervision. The average class will have 30 pupils and the weekly pupil-recitations of the average teacher will be about 700. However, a large number of classes will have 35 pupils.

4. *Senior High Schools*

a. The salary schedules of senior high school teachers are based on a normal assignment of 25 forty-five minute periods per week of regular class instruction, and 5 periods per week of study hall supervision (a total of 1,350 minutes per week), and responsibility for supervision of a home room; or the equivalent of such normal assignment. The average class will have 28 pupils. The normal weekly pupil-load for class instruction per teacher will be about 650 to 750. Few classes will have more than 30 pupils.

b. Heads of departments may be excused for one period a day in order to attend to their administrative and supervisory duties, as approved by the principal. Heads of departments which have fewer than six teachers will normally be expected to carry the teaching load of other teachers.

IV. QUALIFICATIONS OF TEACHERS, PRINCIPALS, AND SUPERVISORS FOR APPOINTMENTS

.. A. *General Regulations*

1. The appointment of any person to any type of position in the Springfield Public Schools shall be made solely for the purpose of providing the best available service for the schools. In making selection among several possible candidates, consideration of comparative fitness to render the best service shall alone determine each appointment.

2. Whatever the credit allowed for experience or training when a teacher enters the system and whatever the salary fixed at that time, such credit and such salary stand as final, subject to adjustment only upon the recommendation of the Superintendent and the approval of the School Committee.

3. The qualifications listed below are the minimum which may be accepted. Excess of one type of qualification beyond the minimum requirement, whether of education or experience, will not be accepted as a substitute for the lack of the minimum qualification of the other type. A temporary appointment may be given to a candidate with less than standard qualifications only when it is impossible to fill the position with a candidate satisfactorily qualified, and under the condition that the deficiency be made up as soon as possible. Only two salary increases may be granted until the deficiency has been made up.

4. In making nominations for any type of position, when all other factors are considered equal, preference will be given to those candidates who have secured the most advanced training.

B. Professional Training

1. General

A minimum of fifteen semester hours of specific professional training in the field of education is required for all teachers in any and all departments of the schools entering service after September 1, 1930. This training shall consist of courses such as methods in the subjects to be taught, psychology, including educational and child psychology, principles of education, history of education, and educational measurement. Practice teaching up to a maximum of three semester hours may be included.

2. Kindergarten and Elementary Grades

a. The minimum educational training required for appointment to a position in the kindergarten or elementary grades is graduation from a two-year course in a recognized normal school or the equivalent, following graduation from an approved high school.

b. Teachers with qualifications for positions in the high schools are eligible to teach in the elementary grades provided they have completed thirty semester hours of work in the field of education.

3. High Schools

a. The minimum educational training required for appointment to a position in a junior or senior high school is graduation from an approved college, university, or teachers' college conferring a bachelor's degree which represents four years of collegiate training. A teacher must have taken either a major or a minor in the subject for which he is appointed.

b. Unusually capable teachers regularly employed in the Springfield elementary schools who have had at least three years of training in a recognized normal school or college may be transferred to a junior high school position.

4. Trade School

a. No teacher will be appointed as a teacher in the Trade School who does not have at least three years of educational training beyond high school, or the equivalent. Teachers in the Trade School who have completed all the requirements which have been set up by the Vocational Division of the State Department of Education for appointment to teaching positions in state-aided schools will be considered to have at least three years of training. (The minimum requirements for appointment to a teaching position in a state-aided school are high school graduation or the equivalent, eight years of trade experience, and completion of the teacher-training course of 120 hours offered by the Vocational Department. Certain modifications of these minimum requirements are defined in Booklet of Information No. 9, Regarding Approval and Qualifications of Teachers in State-Aided Schools.)

b. No teacher will be regularly appointed whose preparation has not included fifteen semester hours of work in professional education. Completion of the teacher-training and professional courses required by the Vocational Division of the State Department will be considered as partially meeting this requirement, fifteen hours of prepared work to be considered the equivalent of one semester hour.

5. Teachers of Special Subjects

a. In the case of teachers of special subjects, extended preparation or practical experience in a special field such as industrial arts may be accepted as meeting in part the qualifications with reference to training; and in such cases equivalents for degrees granted by colleges or universities may be established. When so accepted such equivalent qualifications may be used for establishing the classification of such teachers on the schedules. As in the case of all other teachers, however, teachers of these subjects must meet the standard requirements as to professional education.

b. In the appointment of teachers of art and music, strong preference will be given to graduates of standard schools of art or conservatories of art and music in approved colleges and universities.

6. Supervisors

a. The minimum professional training required for appointment to a position of supervisor is graduation from a college or university conferring a bachelor's degree representing four years of collegiate work, with special preparation in the field of work which will be supervised.

b. In making appointments to the position of supervisor or assistant

supervisor, other things being equal, preference will be given to those candidates who have earned masters' degrees in education at a recognized college or university.

7. Principals

a. The minimum educational training required for appointment to a position of principal is graduation from a college or teachers college conferring a bachelor's degree representing four years of collegiate work and the completion of at least thirty semester hours in subjects pertaining specifically to the profession of teaching and school administration.

b. Until September 1, 1935, a teacher of superior ability who does not have a bachelor's degree may be appointed as an acting elementary school principal pending the completion of the minimum requirement of professional training. A regular appointment will be made when this requirement is met, provided the work as acting principal is satisfactory, and the principal will be placed upon the regular salary schedules.

c. In making appointments to the position of principal, other things being equal, preference will be given to those candidates who have earned masters' degrees in education at a recognized college or university.

C. Experience

1. No candidate shall be considered eligible for a regular teaching position who has not had at least two full years of regular teaching experience in a recognized school system under competent supervision. In the application of this rule, irregular substitute teaching shall not be considered in computing experience.

2. In computing experience a year is understood to be at least thirty-five weeks in length. Any shorter amount, not less than eighteen weeks, will be credited as a half year of experience.

3. Credit for not more than five years of experience obtained outside of Springfield, over and above the minimum two-year requirement, will be given on the salary schedules.

4. Only experience gained within the ten years immediately preceding the beginning of service in the Springfield schools will be recognized.

5. Such experience may be accepted by the Superintendent as he shall determine to be substantially equivalent to the foregoing requirements; e.g., Trade School teachers may be credited with their experience as tradesmen.

V. ADVANCED TRAINING BEYOND MINIMUM REQUIREMENTS¹1. *Credit for Training Obtained Before July 1, 1930*

Credit for training will be given for all work pursued by teachers in service prior to July 1, 1930, which is of a normal school or college grade and which is accredited by a recognized normal school, college, or university.

2. *Approval of Training*

It is recommended to teachers that the type and amount of training to be obtained during any given period be approved in advance by their principals, who will advise them in accordance with the general policies outlined by the Superintendent. The mere gathering of points or credits representing unorganized and haphazard training will not be accepted as a basis for increases in salary. Only such training may be approved by the principal as may reasonably be expected to improve the teacher's work.

3. *Bachelor's Degree*

a. Teachers who are graduates of normal school courses and whose preparation includes thirty semester hours of professional training will not necessarily be required to take additional professional training in completing the remaining years of the collegiate courses required for the bachelor's degree; but such teachers will be expected to obtain their degrees in courses that will better prepare them for the work which they are doing in the schools.

b. For teachers employed subsequent to the adoption of these schedules and for teachers now in service securing degrees after the adoption of these schedules, a bachelor's degree must represent extended preparation in the subjects which they teach. A bachelor's degree earned after September 1, 1931, will not be recognized for advance to the maximum unless the teacher has completed at least fifteen semester hours of work in the field of education.

4. *Master's Degree*

The masters' degrees of senior high school teachers now employed will be recognized for advance to the maximum. For teachers employed after the adoption of these schedules and for teachers now in service securing degrees after the adoption of these schedules, a master's degree must represent special preparation for teaching the subjects taught.

¹The method of securing recognition on the salary schedules for advanced training is given in Section XIV.

After September 1, 1931, a master's degree will not be recognized for advance to the maximum unless the teacher has completed a total of twenty semester hours of work in education either as an undergraduate or as a graduate student.

5. Study in Foreign Countries

Advanced work pursued in colleges or universities in foreign countries will be evaluated on the same basis as work in colleges in the United States. Credit may be given for travel in foreign countries on the basis of three semester hours for one summer, with a maximum of six semester hours to any person.

6. Advanced Training of Trade School Teachers

a. Trade School teachers who, in addition to meeting all of the minimum requirements for appointment to a teaching position set up by the Vocational Division, have completed thirty semester hours of work or the equivalent as approved by the director will be considered to have four years of training.

b. Trade School teachers who are required to maintain a command of their trade and gain further trade knowledge by employment in, or by approved contact with, their trade during vacations will receive two points credit for work which meets the requirements for one year of professional improvement as approved by the State Vocational Division.

7. Equivalents to Degrees

Equivalents to a bachelor's or a master's degree may be established by the Superintendent. Graduate work in a recognized college or university, credit for service prior to September 1, 1930, extended training in a special field, practical experience, or foreign travel may be counted in making up equivalents to college degrees, in accordance with the regulations of these schedules.

APPENDIX

247

VI. TEACHERS' SALARY SCHEDULES

SCHED- ULES	YEARS OF TRAINING	MIN- IMUM	YEARLY INCREMENTS	MAX- IMUM
<i>Elementary Schools</i>				
I	Successful completion of a two-year course in normal school or the equivalent . . .	\$1200	8 x \$100	\$2000
II	Successful completion of a three-year course in normal school or the equivalent	1300	9 x \$100	2200
III	Successful completion of four years of college work with a standard bachelor's degree or the equivalent	1400	9 x \$100	2300
<i>Junior High Schools</i>				
I	Successful completion of a three-year course in normal school or the equivalent	1400	9 x \$100	2300
II	Successful completion of four years of college work with a standard bachelor's degree or the equivalent	1500	1 x \$100 & 8 x \$125	2600
<i>Trade School</i>				
I	Successful completion of a three-year course in normal school or college or the equivalent in trade experience	1750	8 x \$125	2750
II	Successful completion of four years of college work or the equivalent in trade experience	1750	10 x \$125	3000
<i>Senior High Schools</i>				
I	Women—Successful completion of four years of college work with a standard bachelor's degree or the equivalent	1600	8 x \$150 & 1 x \$100	2900
II	Men—Successful completion of four years of college work with a standard bachelor's degree or the equivalent	1750	9 x \$150 & 1 x \$100	3200
III	Women and Men—Successful completion of five years of college work with a standard master's degree or the equivalent	1750	9 x \$150 & 1 x \$200	3300

VII. SERVICE CREDIT

1. In order to do justice to the older teachers in the elementary and the junior high schools, who make up the lowest paid groups in the schools, service credit will be granted equal to two credits of educational preparation for each year of teaching service in Springfield beyond the fifth year, up to a maximum of thirty credits. This is equivalent to a full year of college preparation for those who have taught in Springfield for twenty years.

2. Service credit will be granted only to those elementary and junior high school teachers who on September 1, 1930, have served in the Springfield schools more than five years. No service credit will be given for service rendered subsequent to this date.

3. Service credits will not be counted in computing qualifications of elementary teachers for transfer to the junior high school, or of junior high school teachers for transfer to senior high school positions.

4. Service credit will be given as follows:

SERVICE IN SPRINGFIELD BEGINNING:	SERVICE CREDIT
September 1924	2
" 1923	4
" 1922	6
" 1921	8
" 1920	10
" 1919	12
" 1918	14
" 1917	16
" 1916	18
" 1915	20
" 1914	22
" 1913	24
" 1912	26
" 1911	28
" 1910	30 credits or the equivalent of one full year of college training

VIII. CLASSIFICATION OF TEACHERS EMPLOYED PRIOR TO JULY 1, 1930

1. *Elementary School Teachers*

Elementary school teachers will be counted to have at least two years of training, exclusive of service credit; but no teacher may advance to the four-year maximum except on the basis of training accredited by a recognized normal school or college, plus credit for service.

2. Junior High School Teachers

a. Junior high school teachers credited with 2.4 years of training (including service credit) will be placed upon the schedule for teachers with three years of training. Teachers not counted to have 2.4 years of training will be placed upon the schedule for elementary school teachers with two years of training until their training and service credit warrant their transfer to the junior high school schedule.

b. Junior high school teachers will be counted to have at least two years of training, exclusive of service credit; but no teacher may advance to the four-year maximum except on the basis of training accredited by a recognized normal school or college, plus credit for service.

3. Manual Arts and Physical Education Teachers—Grades, Kindergarten to Ninth

Elementary and junior high school teachers of manual arts and physical education will be placed upon the schedule for teachers with four years of training.

4. Senior High School Teachers

Senior high school teachers will be considered to have at least four years of training; but no teacher will be advanced to the five-year maximum who does not have a master's degree representing five years of collegiate work in a recognized college or university or the equivalent.

IX. PRINCIPALS' SALARY SCHEDULES

SCHOOL DIVISION	ANNUAL INCREMENT	MAXIMUM
Elementary		
Group I 5-9 Teachers	\$150	\$2600
Group II 10-14 Teachers	150	3000
Group III 15-19 Teachers	150	3300
Group IV 20-24 Teachers	150	3600
Group V 25 or more Teachers	150	3900
Junior High—Elementary	200	4200
Junior High		
Group I 25-39 Teachers	200	4500
Group II 40 or more Teachers	200	5000
Senior High	200	5700

X. CLASSIFICATION OF SCHOOLS ACCORDING TO NUMBER OF TEACHERS

The classification of a school in terms of the number of teachers will be determined by the School Committee upon the recommendation of the Superintendent for the succeeding year in March. In determining the number of teachers as a basis for fixing the group within which any given principalship shall fall, only regular or substitute teachers assigned to permanent positions shall be counted. These shall include kindergarten assistants, teachers of special classes, teachers of special subjects assigned on a full-time basis, and principals' assistants. Teachers in permanent positions, but serving only part-time, may be counted in terms of the fractions representing the time they serve. Principals' clerks and teachers assigned to a building temporarily shall not be included. In the case of schools in which the pupil-teacher ratio is below standard, the base will be the number of teachers which would belong were the school organized according to the standard pupil-teacher ratio for the school concerned. In cases where by force of circumstances the pupil-teacher ratio is too high, a school may be counted to have the number of teachers which it would have under the standard pupil-teacher ratio for that school. Any increase or decrease in the number of teachers in a school during any school year will not affect the salary of the principal during that year. No change in the classification of a school will be made unless the increase or decrease in pupil membership appears to be the result of a constant, permanent trend in the school population of the school.

XI. CLASSIFICATION OF SPECIAL POSITIONS

1. *Salaries of Superintendent's Staff*

a. The salaries of the assistant superintendent, the supervisors, and the directors of special departments are not scheduled, but will be fixed by the School Committee upon the recommendation of the Superintendent of Schools.

b. The maximum salary for assistant supervisors is \$3,100, to be reached by annual increases of \$150.

2. *Director of Trade School*

The Director of the Trade School is placed upon the schedule for junior high school principals of schools having 25-39 teachers.

3. *Director of Continuation School*

The Director of the Continuation School is placed upon the schedule for junior high-elementary school principals.

4. *Differentials*

The following differentials, for types of service designated, are to be added automatically to the salary regularly provided by the schedules. These differentials are to be considered as distinct from the regular salary and are to apply immediately. They will apply only during the period that service entitling the teacher to a differential is being rendered. The following differentials have been adopted:

a. A differential of \$100 for teachers of manual arts and physical education in elementary and junior high schools.

b. A differential of \$150 for counselors in the senior high schools; a differential of \$125 to counselors in the junior high schools and the Trade School.

c. A differential of \$100 to teachers in charge of elementary schools to include teachers of auxiliary classes, physical education, manual arts, open-air classes, sight conservation classes, and teachers of the deaf.

d. A differential of \$400 for department heads in senior high schools (a differential of \$200 to be granted the first year the service is rendered and an additional \$200, or a total of \$400, the second and succeeding year).

e. A differential of \$100 to teachers in charge of elementary schools with fewer than five teachers.

5. *Trade School Teachers in Charge of Departments*

The maxima for teachers in charge of departments in the Trade School will be \$100 higher than the maxima for regular teachers.

6. *Visiting Teachers*

Visiting teachers are placed upon the schedule for assistant supervisors.

7. *Continuation School Teachers*

Women teachers in the Continuation School are placed upon the junior high school schedule, and men teachers are placed upon the Trade School schedule.

8. *Kindergarten Assistants*

The maximum salary for kindergarten assistants is \$1,800.

9. *Principals of Junior High Schools With Fewer Than Twenty-Five Teachers*

Principals of junior high schools or junior high-elementary schools with less than twenty-five junior high school teachers will be placed upon the junior high-elementary school schedules. Principals of junior

high-elementary schools with twenty-five or more junior high school teachers will be placed upon the junior high school schedules.

XII. APPOINTMENTS

1. During the first three years of regular service in any type of position regardless of salary the one so serving shall be considered to be strictly "on probation." Continuance of any one longer than three years in any given type of service shall be based solely on the interests of the service and not on the interests of the person immediately concerned. Such continuance shall be based not only on success already achieved, but on evidence of growth warranting the expectation of service commensurate with any increases in salary provided by the schedules applying to the type of position under consideration.

2. Unless otherwise specifically determined, all appointments and re-appointments are for the school year for which they are made, or for the unexpired portion of the school year following the date of appointment.

XIII. ASSIGNMENTS

1. Assignments of teachers will be made under the direction of the Superintendent of Schools. Transfers of teachers from one department or school to another may be made whenever, in the opinion of the Superintendent, the best interests of the schools will be served.

2. In high schools having both senior and junior high grades and in junior high-elementary schools, teachers will be paid in accordance with the schedule under which they are appointed; provided that principals will be expected to assign them for at least half-time to the school division to which they belong.

XIV. ANNUAL SALARY INCREASES

1. *Increases Voted in March*

Annual salary increases, granted for additional experience or training in accordance with the provisions of the schedules, are voted by the School Committee in March. After these increases have been voted, teachers may be advanced to a higher schedule by virtue of additional training up to but not after September 20 of the current school year. Salary increases are not automatic. They are not granted unless there has been a demonstrated improvement in efficiency of service.

2. *Request For Advance to a Higher Salary Schedule*

a. Teachers desiring an advance to a higher salary schedule for a current school year because of additional training must file a Request

for Advanced Salary Rating with the Superintendent on or before September 20; and with this request there must be filed certificates of the credits earned. Should the institution concerned make it impossible to obtain such certificates at the required time, the teacher must in any event fill out and submit the request, and the certificates should then be filed as soon as possible. A Request for Advanced Salary Rating submitted after September 20 will not be considered in determining a teacher's salary for that school year.

b. The Request for Advanced Salary Rating and the certificates of credits for additional training are to be filed with the Superintendent when teachers have had sufficient additional training to warrant a change in rating. They need not be submitted before a change in rating is to be requested.

3. *Changes in Salaries After September 20*

After September 20, the salaries of teachers shall not be changed during the current school year, except as follows:

a. To correct a clerical error or an error fixing a salary inconsistent with the terms of whatever schedule may apply.

b. In case of assignment to service under a higher salary schedule, a salary higher than that originally fixed may be granted as follows:

- (1) Consistent with the schedule applying, by vote of the School Committee, upon the recommendation of the Superintendent.
- (2) In case the assignment is to a position carrying a differential, the differential shall apply automatically.

4. *Annual Increases of Teachers in Service Prior to July 1, 1930*

In order to put this schedule into operation, elementary, junior high, and Trade School teachers who have been in service will be advanced to their respective maxima by annual increases of \$100. Senior high school teachers will be advanced to their respective maxima by steps of \$150.

5. *Annual Salary Increases of Teachers Entering Service on or After September 1, 1930*

Teachers entering the system on or after September 1, 1930, will be placed upon the new schedules. When advanced from one schedule to another by virtue of additional training, they will be placed on that step of the schedule upon which they belong by virtue of their training and experience.

XV. LEAVE OF ABSENCE

1. *Leave of Absence With Pay*

a. In case of illness of any teacher, principal, or supervisor, fifteen days' absence may be granted with full pay. In addition to the fifteen days' sick leave, a teacher, principal, or supervisor may receive one additional day for each year of service in the Springfield schools up to a limit of fifteen days. (In case of continued absence beyond five days, a physician's certificate will be required to be on file in Superintendent's office.)

b. In the case of death in the immediate family (husband, wife, parent, son, daughter, brother, sister) of a teacher, principal, or supervisor, three days' special absence may be granted without loss of pay.

2. *Leave of Absence Without Pay*

a. Leave of absence without pay may be granted on account of prolonged illness, needed rest, necessities of the home and allied causes; or it may be granted for the purpose of taking advanced work in education, or for teaching in a good school system in the United States, or for travel, or for any other activity which would, in the opinion of the Superintendent, redound to the future benefit of the Springfield schools.

b. The request of a teacher for leave of absence without pay shall state the reason for which leave of absence is desired.

c. If a teacher secures leave of absence without pay, his salary status will be unchanged during the period of leave; and his annual increase in salary will be deferred for a period of time corresponding to the length of the leave; except that in granting annual increases absence from teaching for approved professional study or to teach in another school system comparable to that of Springfield shall be considered equal to teaching service in Springfield for the same period.

d. A leave of absence automatically expires at the date of expiration given in the request for leave.

XVI. RESIGNATIONS

1. A teacher intending to resign shall notify the Superintendent of Schools in writing as soon as possible and, in any event, at least thirty days before such resignation is to take effect.

2. A former teacher reappointed after an absence of not more than three years from the system may be reappointed at the salary to which he was entitled at the time of his resignation.

3. A former teacher reappointed after an absence of over three years from the system will be reappointed under the conditions applying to teachers receiving their first appointments.

XVII. TENURE LAW OF MASSACHUSETTS

1. The following is an interpretation of the present Tenure Law of Massachusetts: Teachers who successfully complete three years of service and are reelected are placed on tenure. Teachers on tenure not dismissed for cause are retained. See p. 113 of report. The right of the School Committee to dismiss a teacher employed on tenure is based on Chapter 171, section 42 and amendments thereto, of the General Laws of Massachusetts. In exercising its authority under this statute, to dismiss a teacher on tenure, the School Committee must observe the following procedure:

a. At a duly called regular or special meeting, a formal vote must be taken expressing the intention of the School Committee to meet on a certain specified date for the purpose of taking action on the question of the teacher's dismissal.

b. At least thirty days prior to the appointed meeting, which thirty days shall be exclusive of customary vacation periods, that is, Saturdays, Sundays, school and legal holidays, etc., the teacher must be notified in writing of the intended meeting and vote of the Committee.

c. Upon the written request of the teacher, he shall be given a statement by the Committee of the reasons for which his dismissal is proposed.

d. Upon the written request of the teacher, he shall be given a hearing by the School Committee at which he may be accompanied by a witness. At such a hearing the School Committee may be represented by counsel, may summons witnesses and may require them to testify under oath. The teacher has no power to summons witnesses except by consent of the School Committee.

e. Before taking action the School Committee must receive the recommendation of the Superintendent of Schools, which recommendation must be in writing.

f. No teacher employed on tenure may be dismissed except by a two-thirds vote of the whole Committee.

g. The action of the Committee is not subject to review by the courts except on questions of procedure or of conspiracy.

2. The Tenure Law does not affect the right of a school committee to suspend a school employee for unbecoming conduct.

XVIII. SUBSTITUTE TEACHERS' SALARY SCHEDULES

SCHOOL DIVISION	YEARS OF EXPERIENCE								
	0	1	2	3	4	5	6	7	8
Elementary	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00*	\$7.50			
Junior High ...	5.50	6.00	6.50	7.00	7.50*	8.00	\$8.50	\$9.00	
Senior High	6.00	6.50	7.00	7.50	8.00*	8.50	9.00	9.50	\$10.00

* Highest maximum salary for substitute teachers entering service in school system.

1. The schedules for substitute teachers cover actual services by the day.
2. In the appointment of substitute teachers strong preference shall be given to those who possess educational qualifications for regular service. The waiver of such qualifications in the employment of a substitute teacher shall not be considered a waiver of these requirements in respect to the possible regular employment of such substitute teacher.
3. On appointment salaries of substitute teachers shall be fixed by the Superintendent of Schools within the limits of these schedules.
4. Credit for more than three years of experience outside of Springfield will not be given on these schedules.
5. Temporary appointments may be made to fill positions which will be vacant for at least one full semester and salaries of such appointees shall be determined in accordance with the rules governing admission of new teachers to regular teaching positions.

XIX. MISCELLANEOUS REGULATIONS GOVERNING SALARY SCHEDULES

1. No teacher, as a result of these new schedules, shall lose any of the advantages to which he is entitled under the former schedules.
2. No teacher shall tutor for pay a pupil whose advancement in grade is dependent wholly or in part upon his recommendation; nor shall a teacher tutor for pay any pupil attending public school except on the request of the parent, and with the approval of the principal of such school.
3. The marriage of a teacher in service will not affect his status in the schools while in service.

SCHEDULE OF SALARIES FOR DAY SCHOOL
TEACHERS, PROVIDENCE,
RHODE ISLAND

(Effective September 1, 1930)

GENERAL PROVISIONS

1. This salary schedule shall continue in operation as long as available school funds are sufficient for the purpose. If at any time the funds should become insufficient, further increases in salaries, beyond points to be determined by the School Committee, may be postponed.

2. All teachers now at or above the maximum salaries of the schedule effective prior to September 1, 1930, shall be placed on the new schedule for the school year 1930-1931 at the points next above their present salaries and their salaries shall proceed normally on the new schedule from these points. If the maximum was reached at the beginning of the second term of the school year 1929-1930, the salary shall be advanced not exceeding one hundred dollars on the new schedule for the school year 1930-1931, with normal procedure thereafter. Those who have not yet reached the maximum salaries of the schedule effective prior to September 1, 1930, shall receive an increase of at least fifty or one hundred dollars on the new schedule for the school year 1930-1931, the amount depending on the date of last increase received prior to September 1, 1930. The Superintendent shall have authority to determine the salaries of all teachers involved in the transfer to the new schedule.

3. If a salary is specified as "above the schedule," this amount shall be subtracted from the present salary to determine the schedule salary. The schedule will apply normally from that point, with the addition of the specified amount to the schedule salary for each year. If the particular type of service, for which the additional amount "above the schedule" is granted, is at any time discontinued, the amount specified as "above the schedule" shall be subtracted from the present salary to determine the salary from that point.

4. The beginning salary of any new teacher shall be determined by the School Committee, on recommendation of the Superintendent, by appraising training, experience, and other qualifications at the time of initial appointment. This beginning salary shall include credit for the equivalent of as many years of teaching experience in Providence as the initial salary indicates on the schedule.

5. In special instances a teacher may be advanced, by authority of

the Superintendent, have manifested continuous professional interest and salary rate \$100 with normal procedure on the schedule from that point; provided that such action cannot be taken more than twice for the same teacher, nor oftener than once for any teacher in any period of three years.

6. If it should be decided by the Superintendent that the salary of any teacher should not be advanced according to the schedule, notice to that effect shall be given to such teacher, explaining the causes of such decision. If these causes are not removed during the ensuing school year, the salary of such teacher shall remain the same during the succeeding school year and thereafter until such causes are removed. When the causes are removed, the teacher may resume normal progress on the schedule at the beginning of the following school year.

7. The extended increases beyond the termination of the regular annual increases shall be granted to teachers who, in the judgment of the Superintendent, have manifested continuous professional interest and efficiency.

8. If the next increase of a salary reaches a point on the schedule where the schedule salary continues without change for a period of years, such schedule salary shall be assigned to the first year of the period; otherwise it shall be regarded as the schedule salary of the last year of the period.

9. If a teacher is transferred by the Superintendent from the regular position in an elementary school to any one of the following positions requiring special qualifications and additional training, the teacher may be advanced to such a point on the schedule as will increase the salary one hundred dollars beyond what it would have been for the following year, with normal procedure on the schedule from that point: demonstration schools, disciplinary schools, fresh air schools, platoon schools, prevocational schools, schools for backward children, schools for crippled children, schools for sight conservation, and ungraded schools. If such a teacher is then transferred to a position included in a higher schedule, the teacher, at the beginning of the following school year, shall be advanced on the higher schedule one step beyond the present schedule salary, with normal procedure on the higher schedule from that point.

10. If a teacher is transferred by the Superintendent from a regular position on one schedule to a regular position on a higher schedule, the teacher may be advanced to such a position on this higher schedule as will increase the salary one hundred dollars beyond what it would have been for the following school year, with normal procedure on the higher schedule from that point. If a teacher is transferred from a regular position on one schedule to a regular position on a lower schedule, the teacher may be advanced to such a point on this lower schedule

as will increase the salary two hundred dollars beyond what it would have been for the following school year, with normal procedure on this schedule from that point.

SCHEDULE A

I. *Annual Salaries*

Year of service	1	2	3	3½*	4	5	6	7
Salary	\$1000	\$1100	\$1200	\$1300	\$1400	\$1500	\$1600	\$1700
Year of service	7½*	8	9	10	11	12	13	14
Salary	1800	1900	2000	2100	2200	2200	2300	2300
Year of service	15	16	17	18	19	20	21	22
Salary	2300	2400	2400	2400	2400	2500	2500	2500
Year of service	23	24						
Salary	2500	2500	and so on indefinitely as indicated, with the addition of one year for each suc- ceeding salary level.					

* *Note:* Any person whose schedule salary is \$1200 shall receive a schedule salary at the rate of \$1300 for the first term of the following school year and at the rate of \$1400 for the second term of that school year. The salary of such person shall advance thereafter according to the schedule.

Any person whose schedule salary is \$1700 shall receive a schedule salary at the rate of \$1800 for the first term of the following school year and at the rate of \$1900 for the second term of that school year. The salary of such person shall advance thereafter according to the schedule.

SCHEDULE A

II. *Applications*

1. Teachers in elementary schools, kindergarten to grade eight inclusive.

(Any teacher who received a salary of \$1800 or more, prior to September 1, 1930, shall continue only one year on the salary level of \$2200, advancing normally on the schedule thereafter.)

2. Principals of elementary schools of six teacher units or less, who are not critics, \$200 above the schedule.

3. Principals of elementary schools of more than six and less than thirteen teacher units, who are not critics, \$300 above the schedule.

4. Principals of elementary schools of six teacher units or less, who are also city or state critics, \$400 above the schedule.

5. Assistant principals of elementary schools, \$400 above the schedule.

6. Principals of elementary schools of more than six and less than thirteen teacher units, who are also city or state critics, \$500 above the schedule.

(\$475 shall be subtracted from salary prior to September 1, 1930, to determine beginning schedule salary.)

7. Principals of elementary schools of more than twelve and less than twenty-one teacher units, who are not critics, \$500 above the schedule.

8. Principals of elementary schools of thirteen or more teacher units, who are also city or state critics, \$600 above the schedule.

(\$550 shall be subtracted from salary prior to September 1, 1930, to determine beginning schedule salary.)

9. Principal of the Demonstration School, \$700 above the schedule.

10. Principal of Federal St. Prevocational School, \$800 above the schedule.

11. Principals of elementary schools of more than twenty and less than thirty-one teacher units, \$1000 above the schedule.

12. Principals of elementary schools of more than thirty and less than forty-one teacher units, \$1400 above the schedule.

13. Principals of elementary schools of more than forty and less than fifty-one teacher units, \$1600 above the schedule.

14. Principals of elementary schools of more than fifty teacher units, \$1800 above the schedule.

15. Attendance officers, \$200 below the schedule.

16. Home visitors, \$300 below the schedule.

SCHEDULE B

I. Annual Salaries

Year of service	1	2	3	3½*	4	5	6	7
Salary	\$1200	\$1300	\$1400	\$1500	\$1600	\$1700	\$1800	\$1900
Year of service	7½*	8	9	10	11	12	13	14
Salary	2000	2100	2200	2300	2400	2500	2600	2600
Year of service	15	16	17	18	19	20	21	22
Salary	2700	2700	2700	2800	2800	2800	2800	2900
Year of service	23	24	25	26	and so on indefinitely as indicated, with the addition of one year for each succeeding salary level.			
Salary	2900	2900	2900	2900				

* *Note:* Any person whose schedule salary is \$1400 shall receive a schedule salary at the rate of \$1500 for the first term of the following school year and at the rate of \$1600 for the second term of that school year. The salary of such person shall advance thereafter according to the schedule.

Any person whose schedule salary is \$1900 shall receive a schedule salary at the rate of \$2000 for the first term of the following school year and at the rate of \$2100 for the second term of that school year. The salary of such person shall advance thereafter according to the schedule.

APPENDIX

261

SCHEDULE B

II. *Applications*

1. Teachers in junior high schools, grades seven to nine inclusive.
2. Assistant supervisors of special subjects in elementary grades.
3. Teachers of speech correction.
4. Psychological examiners.
5. City and state critic teachers in elementary schools, not acting as principals.
6. Student advisers in junior high schools, \$100 above the schedule; head student advisers in junior high schools, \$200 above the schedule.
7. Assistant principals in junior high schools, \$900 above the schedule.
8. Principals in junior high schools, \$2000 above the schedule.
9. Principal of Trade School, on twelve months' basis, \$2000 above the schedule.
10. Truant officer and director of attendance, \$2000 above the schedule.
11. Supervisor in Department of Attendance.

SCHEDULE C

I. *Annual Salaries*

Year of service	1	2	3	3½*	4	5	6	7
Salary	\$1400	\$1500	\$1600	\$1700	\$1800	\$1900	\$2000	\$2100
Year of service	7½*	8	9	10	11	12	13	14
Salary	2200	2300	2400	2500	2600	2700	2800	2900
Year of service	15	16	17	18	19	20	21	22
Salary	3000	3000	3100	3100	3100	3200	3200	3200
Year of service	23	24	25	26	27	28		
Salary	3200	3300	3300	3300	3300	3300	and so on indefinitely as indicated, with the addition of one year for each succeeding salary level.	

* *Note:* Any person whose schedule salary is \$1600 shall receive a schedule salary at the rate of \$1700 for the first term of the following school year and at the rate of \$1800 for the second term of that school year. The salary of such person shall advance thereafter according to the schedule.

Any person whose schedule salary is \$2100 shall receive a schedule salary at the rate of \$2200 for the first term of the following school year and at the rate of \$2300 for the second term of that school year. The salary of such person shall advance thereafter according to the schedule.

SCHEDULE C

II. *Applications*

1. Teachers in senior high schools, grades ten to twelve inclusive.
(Grade nine shall be included, if it is in the same school.)

2. Teachers in the Trade School, on twelve months' basis.
3. Assistants in Department of Research and Guidance, \$100 above the schedule.
4. Student advisers in senior high schools, \$100 above the schedule.
5. Heads of departments in senior high schools, not exceeding \$200 above the schedule, the amount to be determined by the Superintendent.
6. Faculty directors of athletics in senior high schools, not exceeding \$300 above the schedule, the amount to be determined by the Superintendent.
7. Coaches of athletic teams in senior high schools, not exceeding \$600 above the schedule, the amount to be determined by the Superintendent.
8. Deans of girls in senior high schools, \$300 above the schedule.
9. Supervisors of elementary schools, home economics, drawing, nurses, athletics for boys, physical education, kindergartens, and penmanship; assistant director of music, and instructor in nature study and visual education, \$500 above the schedule.
10. Supervisor of Special Schools, \$600 above the schedule.
11. Vice-Principals in senior high schools, \$900 above the schedule.
12. Directors of manual arts and music, \$2000 above the schedule.
13. Director of Health and Physical Education, \$2300 above the schedule.
14. Principals in senior high schools, \$2400 above the schedule.

SPECIAL PROVISIONS

1. Student teachers in city training in the elementary schools shall receive an annual salary of \$600.
2. Student teachers in city training in junior and senior high schools shall receive an annual salary of \$800.
3. Unassigned teachers in elementary schools shall receive an annual salary of \$800 the first year and \$900 thereafter.
4. Unassigned teachers in junior and senior high schools shall receive an annual salary of \$900 the first year and \$1000 thereafter.
5. If a principal is assigned to full-time supervision over two or more large buildings, such principal may be advanced, by the Superintendent, an additional step on the salary schedule.
6. Those persons occupying positions as assistants to teachers and other positions of less than teacher rank shall receive special salaries below Schedule A, as may be recommended by the Superintendent and approved by the School Committee.

BRONXVILLE SALARY SCHEDULE

Adopted by the Board of Education, March 21, 1927

In adopting a salary schedule for the Bronxville Schools, the Board of Education has been animated by a desire to arrive at a fair rate of compensation for all teachers, based upon the amount of their teaching experience, and rewarding adequately their efforts toward professional improvement.

Increments based upon teaching experience shall be continuous throughout the period of employment, but shall decrease in amount after the earlier years. The accompanying summary of salaries indicates the amount allowed for the first twelve years of experience. The increments for the thirteenth, fourteenth, and fifteenth year of experience shall be \$30 each, and the increments thereafter, \$20 each per year. While these are not large in amount, they represent a continuous recognition upon the part of the School Board of the value of continuing tenure. These increments for experience are based upon a person's teaching experience, regardless of where acquired, and are not based on Bronxville tenure.

Increments shall also be paid for professional improvement beyond a Normal Diploma or its equivalent. These increments shall be added to the basic salary determined by the number of years of teaching experience, and shall be figured at the rate of \$6 per Columbia University point, or at the rate of \$21 per University of Chicago major. Credit hours from other colleges, to be accepted, must be shown in their equivalent to one or other of these standards. The increment for the equivalent of the Junior Year will amount therefore to \$189; for a Bachelor's Degree to \$378; and for a Master's Degree to \$567. Because a certain amount of experience is essential before a teacher can reach the maximum efficiency to be derived from advanced professional training, we are not allowing full credit for advanced degrees until the teacher has acquired a certain amount of practical experience. This is shown in the table on the following page.

By a ruling of the Bronxville Board of Education, no teacher will be employed who has had less than two years of practical experience, or who holds less than a Normal School Diploma, or its equivalent, in the matter of professional training.

APPENDIX

BRONXVILLE SALARY SCHEDULE

TRAINING	YEARS OF EXPERIENCE												
	0	1	2	3	4	5	6	7	8	9	10	11	12
2 Years Normal	\$1500	\$1800	\$2034	\$2209	\$2341	\$2441	\$2516	\$2576	\$2626	\$2676	\$2726	\$2756	\$2786
3 Years Normal or Third College Year	1563	1926	2223	2398	2530	2630	2705	2765	2815	2865	2915	2945	2975
A.B., B.S., Ph.B. ...	1563	1926	2244	2587	2719	2819	2894	2954	3004	3054	3104	3134	3164
A.M.	1563	1926	2244	2587	2908	3008	3083	3143	3193	3243	3293	3323	3353

In addition to the above schedule, the Board of Education reserves to itself and the Superintendent, the right to award salary increments for supervisory positions or athletic assistantships, varying in amount from \$100 to \$1000. The maximum which shall be paid for any position of this type shall be as follows:

Athletic Assistantship—per season	\$200
Head of Department	250
Vice-Principal	250
Assistant Supervisor	250
Supervisor	500
Principal	1000

On recommendation of the Superintendent and Teachers Committee of the Board of Education, the Board reserves the right to add certain increments based upon the unusual or peculiar worth of the individual to the Bronxville Public Schools.

METHOD USED TO ESTIMATE THE FUTURE COST OF THE SALARY SCHEDULE PROPOSED FOR CINCINNATI, OHIO

From Report of the Committee on the Study of Salaries in the Cincinnati Public Schools, Cincinnati, Ohio, Board of Education, 1926

THE PROBABLE COST OF PUTTING THE PROPOSED SCHEDULE INTO OPERATION

It is proposed in this section to get an estimate of the additional expense involved in putting the proposed schedule into operation over a period of ten years.

Many factors are considered, the values of some of which are not ascertainable and with difficulty even approximated. It is therefore necessary at once to caution against the assumption that all results in this chapter are certain and proved.

Four major problems are considered, problems B, A, C, D. The underlying hypotheses are:

- (a) That only the present personnel of the day school is considered. This includes all teachers, assistant principals, principals, and directors in the day schools, but does not include summer academic schools; vacation schools, or night schools.
- (b) That the payroll for the above group for the calendar year or budget year of 1926 is considered the Base. Therefore all sums obtained must be added to this fixed base which is ascertainable from the records of the Clerk of the Board of Education.

Problem B—To approximate the additional cost for the next ten years—assuming:

- (a) That the present personnel of the day teaching staff remains exactly as it is now. (No additions, losses, or changes.)
- (b) That the present salary schedule remains operative just as it is throughout these ten years.
- (c) That salaries indicated on the January, 1926 payroll are used as the starting point.

In this computation we are assuming the payroll of the budget or calendar year 1926 as the base. All computations therefore, will be directed towards finding out how much additional money must be provided each year above and beyond this base.

APPENDIX

267

SCHOOL YEAR	AMOUNT OF AUTOMATIC INCREASES ABOVE PRECEDING YEAR FOR 10 MONTHS	BUDGET OR CALENDAR YEAR	AMOUNT OF AUTOMATIC INCREASES ABOVE PRECEDING BUDGET YEAR	AMOUNT FOR SM.-HUGHES INCREASES IN SUMMER*	TOTAL NEEDED IN BUDGET YEAR ABOVE PRECEDING BUDGET YEAR
1926-27	98,489**	1927	{ 59093 34770 }	1260	95123
1927-28	86,924	1928	{ 52154 30308 }	1260	83722
1928-29	75,771	1929	71385	1260	72645
1929-30	64,804	1930	60739	1244	60739
1930-31	54,642	1931	50241	1244	51485
1931-32	43,639	1932	38937	1222	40159
1932-33	31,884	1933	27632	1056	28688
1933-34	21,254	1934	18632	1013	19645
1934-35	14,699	1935	12713	845	13558
1935-36	9,734	1936	8737	704	9441
1936-37	7,242				

* 245 days in school year of Smith-Hughes activities.

** 40% of 98489 is in 1926 budget and already provided in 1926 income.

In order to get the above statistics, the history of the automatic increases (annual) of the salary of every person in the day schools was traced through a period of ten years. [Computation Sheets B (1-6).] These sums were obtained for the school years—as 1927-28, etc. These were then reduced to the budget or calendar year by distributing 60% and 40%. For instance to obtain the calendar year 1928, we take 60% of the school year 1927-28, and 40% of the school year 1928-29.

The following table then shows the amount of each budget year above the Base. Theoretically, under the conditions of the problem, the 1936 budget would be \$475,205 above the 1926 budget. (See last item below.)

BUDGET YEAR	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Base Plus	95123	95123 83722	95123 83722	95123 83722	95123 83722	95123 83722	95123 83722	95123 83722	95123 83722	95123 83722
The Base is the Budget or Calendar Year 1926			72645	72645 60739	72645 60739	72645 60739	72645 60739	72645 60739	72645 60739	72645 60739
					51485	51485	51485	51485	51485	51485
						40159	40159	40159	40159	40159
							28688	28688	28688	28688
								19645	19645	19645
									13558	13558
										9441
Base Plus	95123	178845	251490	312229	363714	403873	432561	452206	465764	475205

Problem A—To approximate the additional cost for the next ten years, assuming:

- That the present personnel of the day teaching staff remains exactly as it is (no additions, losses, or changes).
- That the proposed schedule be introduced January 1, 1927, with the schedule, differentials, and adjustments for service as indicated in the report of the committee operative. (See Section V.)
- That all persons are assigned to Class I, II, or III, in accordance with the answers as indicated on the questionnaire sent out by the Salary Committee. The committee accepted without question or check the statements concerning salary, experience, and preparation. The committee has not assumed to say "how teachers may be classed later when a committee which studies this makes its recommendations."

In the computations we are assuming the payroll of the budget or calendar year, 1926, as the Base. Therefore, all computations will be directed towards finding out how much additional money must be provided each year above and beyond this Base.

APPENDIX

269

SCHOOL YEAR	AMOUNT OF IN- CREASES FOR 10 MONTHS ABOVE PRECEDING YEAR	SAME FOR SMITH- HUGHES (245 DAYS)	BUDGET OR CALENDAR YEAR	AMOUNT OF IN- CREASES ABOVE PRECEDING BUDGET YEAR	SAME FOR SMITH- HUGHES **	TOTAL NEEDED IN BUDGET YEAR ABOVE PRECEDING BUDGET YEAR
Sept. 1— Dec. 31, '26	39095	*2200				
Jan. 1-Sept. '27	197879	5795	1927	{ 197879 130241 }	{ 5795 2668 }	336583
1927-28	325602	8337	1928	{ 195361 83946 }	{ 5669 2476 }	287452
1928-29	209864	7737	1929	186257	7697	193954
1929-30	150848	7614	1930	142985	7595	150580
1930-31	131189	7553	1931	123469	7514	130983
1931-32	111890	7430	1932	107068	7017	114085
1932-33	99836	6140				
1933-34	72251	5467	1933	88802	5924	94726
1934-35	49127	3901	1934	63002	4966	67968
1935-36	36352	3225	1935	44017	3685	47702
1936-37	23950	2152	1936	31391	2882	34273

* Included in 1926 Budget.

** Divided on a 32% and 68% basis.

In order to get the above statistics the increases according to the proposed schedule were traced for every salary in the day schools through a period of ten years. (Computation Sheets A [1-7].) This problem then is handled as is Problem B.

The following table shows the amount of each budget or calendar year above the Base. Theoretically, under the conditions of the problem, the 1936 budget would be \$1,458,306 above the 1926 budget.

BUDGET YEAR	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Base Plus	336583	336583	336583	336583	336583	336583	336583	336583	336583	336583
		287452	287452	287452	287452	287452	287452	287452	287452	287452
The			193954	193954	193954	193954	193954	193954	193954	193954
1926				150580	150580	150580	150580	150580	150580	150580
Budget					130983	130983	130983	130983	130983	130983
is con-						114085	114085	114085	114085	114085
sidered							94726	94726	94726	94726
the								67968	67968	67968
Base									47702	47702
										34273
Base Plus	336583	624035	817989	968569	1099552	1213637	1308363	1376331	1424033	1458306

Bringing together the results of Problems A and B, we note that the theoretical increase of the proposed schedule over the old schedule by 1936 is \$983,101. See last line in the table below. This table gives year by year the amount of the increase which the proposed schedule demands above the present schedule under the conditions of our problems.

INCREASES ABOVE THE BASE (1926 BUDGET) FOR EACH YEAR

BUDGET YEAR	PROBLEM B— UNDER PRESENT SCHEDULE	PROBLEM A— UNDER PROPOSED SCHEDULE	THEORETICAL DIFFERENCE—OR REAL INCREASE DUE TO PROPOSED SCHEDULE
1927	95123	336583	241460
1928	178845	624035	445190
1929	251490	817989	566499
1930	312229	968569	656340
1931	363714	1099552	735838
1932	403873	1213637	809764
1933	432561	1308363	875802
1934	452206	1376331	924125
1935	465764	1424033	958269
1936	475205	1458306	983101

The real problems of the chapter have now been answered. Of course it is a hypothetical assumption that the personnel will not change (by additions, losses, or changes) during the ten years. Two factors will be

operative through the ten years which have the opposite effect on the amounts needed. The effect of these makes necessary Problems C and D.

Problem C—To approximate the amount saved because teachers are constantly leaving the system, the tendency is to replace higher priced or older teachers with younger, and therefore with teachers whose salaries are nearer the beginning point. This latter is the case when teachers retire.

Problem D—To approximate the additional amounts needed because of a real increase in teaching force due to the expansion of the educational program or increase in school population.

Problem C—Studying the changes in the last three years as indicated in the questionnaire, we get the following table from which the yearly replacement is placed at 85 as a "safe" figure.

STUDY OF YEARLY CHANGES IN THE TEACHING PERSONNEL

YEAR	CHANGES							
	Ele.	Voc.	H. S.	Ele. A. P.	H. S. A. P.	Ele. Prin.	Voc. Prin.	Total Changes
1925-26	107	13	48	6	2	3	0	179
1924-25	107	10	23	10	0	0	0	150
1923-24	111	6	27	3	0	2	2	151
Total	325	29	98	19	2	5	2	480
Average	108	10	32	6	1	2	1	160
Minus*	42	9	14	0	0	0	0	66
Changes	66	1	18	6	1	2	0	94

* Distribution of absolute gain.

YEAR	TRANSFERS									
	Voc.	H. S.	Ele. A. P.	H. S. A. P.	Ele. Prin.	Voc Prin	Total Trans- fers	Total New Teachers	Total Increase	Total Replace- ments
1925-26	3	33	5	2	3	0	46	133	50	83
1924-25	3	11	9	0	0	0	23	127	82	45
1923-24	3	10	1	0	2	2	18	133	67	66
Total	9	54	15	2	5	2	87	393	199	194
Average	3	18	5	1	2	1	29	131	66	65

The problem of the average saving on a replacement is partially indicated as follows. Since by the method of computation used, every position is filled by a person who ultimately receives the maximum, all increases have been included. So, for instance, in the scheme below, if a \$2000 person (a) is replaced by a \$1700 person (b) we save \$300 the first year, \$200 the second year, then \$100.

Replace (a) by (b):

(a)	2000	2000	2000	2000
	<u> </u>			<u> </u>
	1900	1900	1900	
	<u> </u>	<u> </u>	<u> </u>	
	1800	1800		
	<u> </u>			

(b) 1700

The table below shows that 127 elementary appointments were made at an average of \$1337, and that 92 teachers left while having an average salary of \$1720.

TEACHERS	AVERAGE APPOINTMENT SALARY	TEACHERS	AVERAGE WITHDRAWAL SALARY	SAVING
127 Elementary	1337	92	1720	\$350
4 Vocational	1844	3	1850
18 Senior High	1764	10	2245	\$400

The new schedule brings in many disconcerting factors that make it impossible to determine a typical saving. These elements are as follows:

(a) A new minimum for all.

(b) Varying increments—(therefore different rates of increase).

(c) Varying Maximums. This latter is particularly difficult because a teacher with a high maximum may replace one with a low maximum, so that ultimately this change will mean a greater outlay rather than a saving. Care must be taken that the theoretical saving is not offset by these increments beyond the salary displaced. As all advance higher in the schedule, the chance for a saving becomes greater.

Another element which offsets a possibility of saving is the transfer of teachers from Class I to Class II or III, hence to a higher maximum increase. No allowance can be made for this. These transfers are bound to result from the proposed schedule which invites professional preparation by rewarding it.

The following is based on an arbitrarily chosen replacement and saving figure of \$300 and \$375.

	Sept.- Jan.	Jan.- June	1927- 28	1928- 29	1929- 30	1930- 31	1931- 32	1932- 33	1933- 34	1934- 35	1935- 36	1936- 37
85 replace- ments at \$300 saving 1st Year	10200	10200	8500 25500	17000 25500	8500 17000 *31875	8500 21250 31875	10625 21250 31875	10625 21250 31875	10625 21250 31875	10625 21250 31875	10625 21250 31875	10625 21250 31875
	10200	10200	34000	42500	57375	61625	63750	63750	63750	63750	63750	63750

* 375, 250, 125 saving used.

Changes from the school year to the budget year by the usual method:

SCHOOL YEAR	SAVING	BUDGET YEAR	SAVING
Jan. 1-June, 1927	10200 (60%)		
1927-28	34000 (40%)	1927	23800
1928-29	42500	1928	37400
1929-30	57375	1929	48450
1930-31	61625	1930	59075
1931-32	63750	1931	62475
1932-33	63750	1932	63750
1933-34	63750	1933	63750
1934-35	63750	1934	63750
1935-36	63750	1935	63750
1936-37	63750	1936	63750

If now, the savings due to replacements are subtracted from the estimated budget of each year, the results show the increase which is an approximation of what it will cost each year above the 1926 budget.

BUDGET YEARS	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Cost over Base A	366593	624035	817989	968569	1099552	1213667	1308363	1376331	1424033	1458306
Savings (replace C)	23800	37400	48450	59075	62475	63750	63750	63750	63750	63750
	312793	586635	769539	909494	1037077	1149887	1244613	1312581	1360283	1394556

The above results must be accepted with a reservation, that this item of saving (Problem C), is of doubtful validity due to the indeterminate factors upon which it is based.

Problem D—Assuming a real gain of forty teachers per year of whom twenty-five belong to Class III, five to Class II, and ten to Class I, what additional cost will there be if this number of teachers be added each year for ten years?

An increase of 228 teachers in the last six years gives an average of thirty-eight per year, the number forty giving a margin of two for executives.

This number forty is, of course, problematical, and may show a

tendency to decrease each year. The division into college graduates, three-year normal or college students, et cetera, is made broadly on the experience of the last three years.

Each year gives an addition of forty teachers who then must be given their yearly increases until the maxima are reached upon the basis of the proposed schedule.

Class	Number	Minimum	Maximum	Annual Increment
III	25	1600	3100	150
II	5	1600	2225	125
I	10	1600	2000	100
	—			
	40			

This means that in ten years 400 teachers will be added.

It is assumed that all teachers start at \$1600. This will not be true in every case. Since the following estimate does not allow for the repetition of the initial salary, as our schedule proposes, this makes provision for some teachers entering at a higher rate.

APPENDIX

	1926	*1927	1927- 28	1928- 29	1929- 30	1930- 31	1931- 32	1932- 33	1933- 34	1934- 35	1935- 36	1936- 37
25-III		24000	3750	3750	3750	3750	3750	3750	3750	3750	3750	3750
5- II		4800	625	625	625	625	625					
10- I		9600	1000	1000	1000	1000						
			40000	3750	3750	3750	3750	3750	3750	3750	3750	3750
			8000	625	625	625	625	625				
			16000	1000	1000	1000	1000					
				40000	3750	3750	3750	3750	3750	3750	3750	3750
				8000	625	625	625	625				
				16000	1000	1000	1000	1000				
					40000	3750	3750	3750	3750	3750	3750	3750
					8000	625	625	625	625	625	625	625
					16000	1000	1000	1000	1000	1000	1000	1000
						40000	3750	3750	3750	3750	3750	3750
						8000	625	625	625	625	625	625
						16000	1000	1000	1000	1000	1000	1000
							40000	3750	3750	3750	3750	3750
							8000	625	625	625	625	625
							16000	1000	1000	1000	1000	1000
								40000	3750	3750	3750	3750
								8000	625	625	625	625
								16000	1000	1000	1000	1000
									40000	3750	3750	3750
									8000	625	625	625
									16000	1000	1000	1000
										40000	3750	3750
										8000	625	625
										16000	1000	1000
											40000	3750
											8000	625
											16000	1000
												40000
												8000
												16000
Increase over pre- vious years	38400	69375	74750	80125	85500	89875	93625	97375	101125	104875	108625	

* 1927--January 1, thru June, 1927. 1926 included in present budget.

APPENDIX

277

CONVERTING TO FIGURES FOR BUDGET YEAR

SCHOOL YEAR	INCREASE	BUDGET YEAR	INCREASE NEEDED OVER PREVIOUS YEAR
January 1-June, 1927	38400	1927	66150
1927-28	69375	1928	71525
1928-29	74750	1929	76900
1929-30	80125	1930	82275
1930-31	85500	1931	87250
1931-32	89875	1932	91375
1932-33	93625	1933	95125
1933-34	97375	1934	98875
1934-35	101125	1935	102625
1935-36	104875	1936	106375
1936-37	108625		

The following table then shows what must be added each year to the 1926 budget to provide for gains. As in the original problems, B, A, and C, replacements will come within this group, which would lead again to saving, because of the replacement of older retiring teachers by younger ones, and hence by teachers whose salaries are nearer the minimum.

In this problem, as in Problem C, a history of savings will need to be carefully recorded within the next five years.

INCREASES DUE TO NEW TEACHERS

(The totals represent the sum above the Base Year—1926)

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
	66150	66150 71525	66150 71525 76900	66150 71525 76900 82275	66150 71525 76900 82275 87250	66150 71525 76900 82275 87250 91375	66150 71525 76900 82275 87250 91375 95125	66150 71525 76900 82275 87250 91375 95125 98875	66150 71525 76900 82275 87250 91375 95125 98875 102625	66150 71525 76900 82275 87250 91375 95125 98875 102625 106375
Base Plus	66150	137675	214575	296850	384100	475475	570600	669475	772100	878475

All the amounts in the preceding table would be above the 1926 Base, since they provide for a greater number of teachers than are now used to serve our school system.

FINAL CAUTION

The indeterminate character of many elements involved in the discussion of this chapter makes it necessary to use all statements with reserve.

SUPPLEMENT TO SALARY REPORT

When the report of the Committee on the Study of Salaries was submitted to Dr. Condon and the Board of Education, it was thought that the estimate for additional teachers, namely forty per year, was too large, and twenty-five was suggested by them as a closer approximation. Accordingly, Problem DI is computed in the same manner as D, with the following arbitrarily chosen classification of additional teachers:

Class III	15
Class II	5
Class I	5

25

Problem DI—As in Problem D, it is assumed that the teachers start at \$1600. This will not be true in every case, but since the estimate does not allow for the repetition of the initial salary as our schedule proposes, provision is made for some teachers entering at a higher rate.

The same methods are used as in working Problem D; some steps are omitted here. The following table then shows what must be added

INCREASES DUE TO ADDITIONAL TEACHERS

(The totals represent the sum above the Base Year 1926)

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
	41350	41350 44725	41350 44725 48100	41350 44725 48100 51475	41350 44725 48100 51475 54650	41350 44725 48100 51475 54650 57275	41350 44725 48100 51475 54650 57275 59525	41350 44725 48100 51475 54650 57275 59525 61775	41350 44725 48100 51475 54650 57275 59525 61775 64025	41350 44725 48100 51475 54650 57275 59525 61775 64025 66275
	41350	86075	134175	185650	240300	297575	357100	418875	482900	549175

each year to the 1926 Budget to provide for gains. As indicated in Problem D, replacements may come in this group consisting of 250 in ten years, which would lead to a saving.

The following table summarizes these problems:

Problem A—Increases for each budget year above the base year if the proposed schedule becomes operative.

Problem DI—Increases under the proposed schedule twenty-five teachers are added annually.

Problem A & D, equals the Total of Increases.

Problem C—An approximation of savings due to replacements.

The final result if replacement savings are subtracted.

All the following statements show increases above the 1926 Budget or Base Year.

SUPPLEMENTARY

BUDGET YEAR	INCREASE ABOVE BASE YEAR DUE TO SCHEDULE PROBLEM A	INCREASE DUE TO TEACHERS PROBLEM DI	TOTAL OF A AND DI	DECREASES BECAUSE OF REPLACE- MENTS PROBLEM C	TOTAL ABOVE 1926 ACTUALLY NEEDED. FINAL RESULT
1927	336583	41350	377933	23800	354133
1928	624035	86075	710110	37400	672710
1929	817989	134175	952164	48450	903714
1930	968569	185650	1154219	59075	1095144
1931	1099552	240300	1339852	62475	1277377
1932	1213637	297575	1511212	63750	1447462
1933	1308363	358100	1666463	63750	1602713
1934	1376331	418875	1795206	63750	1731456
1935	1424033	482900	1906933	63750	1843183
1936	1458306	549175	2007481	63750	1943731
1937					

Problem E—(Supplementary problem, at the suggestion of the Board of Education.)

To approximate the additional tax levy in mills needed for the next five years if:

- A variable extra levy is assessed, or
- A constant extra levy is assessed with the understanding that surpluses are allowed to accumulate in a separate fund to offset deficits.

The following table gives the approximations, using a tax duplicate of one billion dollars.

BUDGET YEAR	AMOUNT NEEDED ABOVE BASE 1926	VARIABLE TAX LEVY ON A BILLION- DOLLAR DUPLICATE (A)	FIXED TAX LEVY ON A BILLION- DOLLAR DUPLICATE (B)	SURPLUS	DEFICIT
1927	354,133	.354	.86	505,867	
1928	672,710	.673	.86	187,270	
1929	903,714	.904	.86		43,714
1930	1,095,144	1.095	.86		235,144
1931	1,277,377	1.277	.86		417,377
Total	4,303,078	4.303	4 30	*693,137	696,235

* The slight difference in surplus and deficit can be met by a duplicate slightly in excess of one billion dollars.

INDEX

- Ability, community's to support teachers' salaries, 165-170; measures of to support teachers' salaries, 165-170; willingness and, 171
- Administrative policies, influence of on salary costs, 134
- American Federation of Labor, influence of on wages, 17
- Australia, 23, 33
- Automatic increments, *see* Increments
- Awards, 19
- Bargaining power, of employers, 12; of labor, 12
- Belgium, 35
- Boards of education, salary campaigns and, 176, 177
- Bonds, school, and ability to pay, 168, 169
- Bonuses for additional training, 65; arguments for and against, 65; conditions for granting, 64-66; defined, 113
- Bronxville, New York, 69
- Budget, teachers, composition of, 29; difficulties in establishing, 28; proportion of allotted to food and rent, 30; standardization of, 27
- Capital, wages and, 8
- Cartoons, in salary campaigns, 203
- Charts, in salary campaigns, 203
- Chicago, Illinois, 177
- Cincinnati, Ohio, 118, 182
- Circulars, in salary campaigns, 203
- Citizens committee, composition of, 177; size of, 177
- City council, 176
- Clark, H. F., 186
- Closter, New Jersey, 178
- COMMUNITY'S ABILITY TO SUPPORT TEACHERS' SALARIES, 165-172; *see also* Ability
- Compensation, *see* Salaries
- Compulsory Education, influence of on demand, 19
- Control of salaries, 20-22
- Cost of living, 23-32; how to show, 183; indexes of, 185; measurement of, 24, 94; methods of studying, 26; minimum salaries and, 92; standard of living and, 26, 27; wage adjustments and, 24
- COST OF A SALARY SCHEDULE, 124-164
- Culture, relationship of to salary, 3, 4
- Dalton plan, 126

- Demand, marginal factors governing, 12; stimulation of by advertising, 18
- Director, function of in salary campaigns, 178, 179
- Division of Field Studies, Institute of Educational Research, Teachers College, Columbia University, 178
- Doctrine, missionary, influence of on teaching, 2
- Douglas, Paul H., 185, 195
- ECONOMICS OF TEACHERS' SALARIES, 7-36
- Edie, L. D., 11, 23
- Education, differences between and business, 13, 14
- Efficiency, teaching, measurement of, 61; wages and, 11; *see also* Teacher Rating.
- Elementary teachers, training of, 57
- Employee, 7
- Employers, competition between for labor, 7, 9, 12
- England, 17, 33
- EQUAL PAY, 37-50, alternatives necessitated by, 47-49; apparent advantages of, 44; effects of, 47-49; family allowances and, 37; in New York, 26; legislation, illustrations of, 45, 46; proportionate distribution of the sexes in industry and, 37; reasons for, 37; states having, 45
- Evenden, E. S., 110
- Executive committee, function of in salary campaigns, 181; size of, 180
- Expert, in salary campaigns, 178
- Family allowances, application of principle of to teachers, 36; arguments for, 34; how administered, 35; influence of on birth-rate, 35
- France, 35
- "Free Income," defined, 22; forms of, 22
- Germany, 35
- Graphs, for use in salary campaigns, 203
- Gray, William S., 108
- Harry, D. P., 28, 93, 186
- Health, teacher's, dependence of on salary, 4
- Holyoke, Massachusetts, 103, 110, 111, 178
- Honors, influence of on public respect, 19
- Imperialists, 35
- Incidence of training, 145
- Incidence of turnover, 132; method of estimating, 137
- Increased total production, relationship of to teachers' salaries, 21
- Increments, annual, 59; automatic, arguments for and against, 60; conditional, 62; graduated, advantages of, 99, 100, 111; number and size of, 107, 108, 110; training and, 108, 110, 111
- Indeterminate maximum, 68; advantages and disadvantages of, 69
- Index numbers, cost of living, limitations of in establishing teachers' salaries, 105; purpose

- of 31; reliability of, 32; validity of, 32
- Initial placement, defined, 113
- Instruction, quality of and salary, 5
- Investment for training, return on, 97; and oversupply of teachers, 99
- Iron law of wages, 8
- Labor, immobility of, 11, 12; scarcity of and wages, 11; supply of and wages, 11; utility of, 11
- Laborer, marginal, 10
- Labor union, control of over supply, 16, 17
- Leisure, relationship of to salary, 4
- "Living Wage," Industry's attitude toward, 23
- Los Angeles, 178
- Luxuries, expenditures for, 196
- McAndrews, W. A., 1
- McGaughy, J. R., 25
- Maple Heights, Ohio, 178
- Marginal laborer, 10
- Marginal productivity theory of wages, application of to teachers' salaries, 13, 14; assumptions underlying, 12; limitations of, 12
- Massachusetts commission on the necessities of life
- Maxima graded, method of establishing, 106
- Maximum-indeterminate, *see* Indeterminate-maximum
- Michigan State Teachers Association, 93; circular letters used by in state salary campaign, 206-209
- Minimum, absolute, determination of, 91; adequacy of, 91
- Minima graded, method of establishing, 96, 97; reasons for, 96
- Minneapolis, 178
- Moehlman's index, 94, 95; application of in determining maximum salary, 103, 104
- Money, psychological effect of, 4
- Morris, Lyle L., 42, 56, 153
- Municipal expenditures, 192
- National dividend, 20
- National Education Association, 42, 209
- National Education Association, Research Division of, 67, 71, 115, 186, 190
- National Industrial Conference Board, 30, 32, 33, 63, 185
- National Union of Teachers, 17
- Neo-Malthusians, 35
- Netherlands, The, 35
- Newburgh, New York, 178
- New York City, 25, 31, 89, 90, 172, 177, 178, 182, 203
- New York State, 93, 186, 189
- Normal expansion, extra teachers added for, 142; method of predicting, 127
- "Over-rating," tendency of superintendents toward, 81; reasons for, 81
- "Oversupply" of teachers, 15; influence of on salaries, 16
- Panama Canal Zone, 178
- Parents, comprehension of school program, 173, 174
- Parent-Teacher Association, in salary campaigns, 181

- Pennsylvania, 172, 189
- Personnel, school, classification of, 88-91; factors involved in classification of, 88-89; method of classifying, 88
- Personnel records, 189
- Perth Amboy, New Jersey, 203
- Pittsburgh, 177, 178
- Platoon plan, 126
- Policies, determination of in making salary schedule, 85, 86
- Politics, in salary campaigns, 199
- Population, wages and, 8
- Position-automatic schedule, estimating the cost of, 125
- Position, salary schedule based on, 51
- Position type schedule, advantages and disadvantages of, 53, 54, 55; theory underlying, 52
- Poverty, effect of on teaching, 2
- Preparation, *see* Training
- Preparation type schedule, advantages of, 55, 56; factors in estimating cost of, 144; theory underlying, 55
- Press, the, part played by in salary campaigns, 200
- Prices, "real wages" and, 22
- Principals, schedule for, 113
- Principals' salaries, size of building unit and, 118, 119; techniques used in determining, 114-119; use of index numbers in establishing, 117
- Productivity, of labor, 9
- Productivity, marginal, 10
- Prosperity, national, and teachers' salaries, 21
- Providence, Rhode Island, 69
- Publicity, 173, 175
- Punishment, corporal, abandonment of, 39
- "Purchasing Power of Dollar," defined, 32
- Questionnaire, use of, 189
- Rate of teacher turnover, effect on cost, 130
- Rathbone, E. F., 33
- Rating scales, illustrations of, 72-77; nature of, 71; reliability of, 76, 77, 78; use of in army, 77; validity of, 78; weakness of, 71
- Rebuttals, in salary campaigns, 198
- Redistribution, application of to teachers' salaries, 20, 21
- Replacement policy, 133
- Rewards for training, factors involved in, 97
- Salaries, supervisors' and principals', estimating the cost of, 164
- Salaries, teachers', determination of, 14; effect of on professional preparation, 3; effect of on improvement in service, 3; wages in other occupations, and, 103
- SALARY CAMPAIGNS, 173-210; function of superintendent in, 179; organization of, 176; state, 205
- Salary expert, advantages of employing, 178
- Salary maximum, ability of community to pay, 101; cost of living and, 104; maximum salaries in other communities, and, 101; method of establishing, 101; purposes of, 100
- Salary report, 199
- Salary schedules, advantages of to teachers, 6; classification of, 51;

- influence of on professionalization, 5; method of transition from old to new, 138; origin of, 5; provisions in for special positions, 112-121; rules governing transition from old to new, 122, 123; steps in formulating, 85-123; types of, 56; arguments for and against, 57
- Sampleville, estimating cost of preparation-automatic schedule in, 153; teacher replacements in, 155
- San Francisco, California, 31, 111, 178
- Savings, proportion of in teacher's budget, 30
- Scarcity, importance of in classifying personnel, 89, 90; and wages, 10, 11
- Scholarship, 86
- School, influence of on community, 3; publicity for, 18
- School boards, composition of, 19
- School costs and expenditures, 191
- Security, financial, teaching efficiency and, 4
- Sex differences in teaching ability, 41
- Single salary schedule, defined, 55; methods of estimating cost of, 149; problems in administering, 58, 59
- Specialist, 179; *see also* Expert
- Special positions, schedule for; *see* Salary Schedules
- Springfield, Massachusetts, 86, 102, 103, 182, 189, 190
- Standards of living, 28, 29, 93
- State aid, importance of publicity concerning, 197; influence of on ability to pay, 172
- State salary campaigns, 205, 206
- Subsistence theory of wages, 8; *see also* Wages
- Substitute teachers, 121
- Supermaximum, advantages and disadvantages of paying, 68; defined, 67; when to establish, 106, 107
- Supervisors, salaries of, 119
- Supply, of labor, wages and, 11
- Supply and demand, of teachers, 7, 38, 39
- Taxation, limits of, 170
- Tax-rate, school, ability to support salaries and, 166; where to secure, 191
- Teacher, importance of to society, 2
- Teachers, local, problem of, 87; married, policy toward in formulating schedule, 87; men, decline of, 39; men, advantages of to profession, 41; men, provisions for employing, 42; men, quality of, 42; organization of in salary campaigns, 182; ratio of men to women, 41; support of in salary campaign, 179, 180; women, influence of on salaries, 17, 18; proportion of women in profession, 25; supply of and demand for, 39
- TEACHER RATING, 70-84; arguments for and against, 70; frequency of, 79; influence of on size of increments, 83, 84; methods employed in, 80, 81
- Teacher replacement, 129
- Teachers' salaries, derivation of,

- 20; earning capacity in industry and, 15; means of increasing, 20, 21, 22; adequacy of measurement of, 30; wealth and, 14; wages in comparable occupations and, 15
- Teacher turnover, defined, 188; subtraction of, in estimating costs, 140; women and, 39
- Teaching, advantages of as a vocation, 16
- Teaching efficiency, as a basis for determining salaries, 51
- Teaching load, measures of, 189
- Teaching personnel, 187, 188
- Tenure legislation, 14
- Training, teacher, standards of, 39; effect of single salary schedule on, 153
- "Training expectancy," defined, 145; how determined, 145; incidence of, 148; influenced by, 146, 147; method of estimating, 150, 151, 152
- Travel, salary and, 3
- "Typical Family of Five," 33, 34
- Turnover, teacher; *see* Teacher Turnover
- Types and sources of campaign materials, 182-198
- TYPES OF SALARY SCHEDULES, 51-69
- "Unavoidable turnover," defined, 131; future rate of, 131; salary influence on, 131
- Unequal pay, menace of, 44; necessity for, 50
- United States, 27, 32, 33, 70, 101, 115
- United States Bureau of Labor Statistics, 30, 32, 185
- Utility, of labor, 11
- Upgrading, defined, 113
- Wage-fixing, 14
- Wages, capital and, 8; determination of, 13; efficiency and, 11; influence of teachers' salaries on, 103; in industry, 103; iron law of, 8; marginal productivity theory of, 9; organized unions and, 16; scarcity of labor and, 10, 11; theories of, 8
- Wages fund theory, 8
- Washington, D. C., 191
- Wealth, 166, 167
- Worker, risk assumed by, 12
- Workingman's dollar, 32
- Yonkers, New York, 166, 177, 178
- Young, Lloyd P., 71
- Zonesboro, cost estimation, procedure for, 135, 136; incidence of turnover, method of estimating for, 137; schedule transition, principles of, 157

